

Drawn from nature by J. Wilson.

Engraved by A. Lawson.

Mocking Bird. 2, Egg. 3 & 4, Male and Female Humming Bird, nest and eggs. 5, Towhee Bunting. 6, Egg.

AMERICAN ORNITHOLOGY;

OR,

THE NATURAL HISTORY

OF THE

BIRDS OF THE UNITED STATES:

ILLUSTRATED WITH PLATES

Engraved and Colored from Original Drawings taken from Nature.

BY ALEXANDER WILSON.

VOL. II.

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PREFACE.

THE present Volume, being the second of the Series, is offered to the public with all that humility which becomes a reverential admirer, and very lowly imitator, of the handy works of the Supreme Creator of the Universe. Contemplating their amazing variety, tracing their elegance, symmetry and matchless excellence, at each progressive step he feels more and more sensibly his own *infinite* inferiority; and is only encouraged to proceed, by the consciousness, that what he does is not unpleasing to that beneficent POWER, and may contribute to the innocent amusement and, perhaps, virtuous instruction, of his fellow beings. In the meantime, he avails himself, on this occasion, of the usual privilege of an author, to make a few explanatory remarks, which could not with propriety be introduced in any other place.

In sketching out the present plan it was calculated that the whole of our Ornithology could be comprised in ten volumes, commencing with the Land Birds, and closing with the Water Fowl. The same opinion is still entertained. The different species, of both Divisions, which are either occasionally or regularly found within the territory of the United States, may amount to about four hundred. The first Section will, probably, occupy six volumes; and the remaining four comprehend the whole of the Waders and Aquatic tribes.

The number of the figures introduced in the present volume is considerably more than that of the preceding; and the manner in which they have been executed, will, I trust, convince the patrons of this work, that there exists no disposition in the author to fall off from the original elegance of his publication. On the contrary, he has still further improvements in view; which, when effected, will, he humbly hopes, with all due deference to the judgment of the public, render it not only a standard work on this branch of our natural history; but give it a just claim to rank in elegance, as well as fidelity and copiousness of description, with those of any other country.

Hitherto the whole materials and mechanical parts of this publication have been the production of the United States, except the colors. As these form so important an article in a work of this kind, the most particular attention has been paid to their real, and not merely specious, good qualities; but it is not without regret and mortification he is obliged to confess, that for these he has been principally indebted to Europe. The present unexampl'd spirit, however, for new and valuable manufactures, which are almost every day rising around us; and the exertions of other intelligent and truly patriotic individuals, in the divine science of Chemistry, give the most encouraging hopes, that a short time will render him completely independent of all foreign aid; and enable him to exhibit the native hues of his subjects in colors of our own, equal in brilliancy, durability and effect to any others. In the present volume some beautiful native ochres have been introduced; and one of the richest yellows is from the laboratory of Messrs.

Peale and Son, of the Museum of this city. Other tints of equal excellence are confidently expected from the same quarter.

In the prosecution of his undertaking, the author has been honoured with communications of facts, from various quarters of the United States, relative to the subject on which he is engaged. For all these he returns his most grateful acknowledgments; and gladly indulges the idea that they will become more and more frequent. The subjects of his history being in themselves so numerous, and dispersed over such extensive regions, the observations of one man, be his industry and enterprise what they may, are altogether insufficient to embrace the whole; and unless assisted by the experience and observations of others, a thousand interesting facts and minutiae of character, would unavoidably escape him, which might otherwise have formed the most valuable part of his publication. Another particular, equally interesting to *him*, he would beg leave to suggest to the consideration of those ingenious friends who may honor him with their correspondence. As the provincial names of many of our birds are so multiplied, and frequently so local, as to be altogether unknown in other districts; and, in the communications of those unacquainted with the scientific names and arrangement, render it sometimes very difficult to determine what particular species is really meant; if, in addition to well authenticated facts, preserved skins of such birds as are supposed rare or new, could be conveniently transmitted to the author, the obligation would be greatly increased, and properly acknowledged. Several gentlemen, living in remote parts of the union, and others trading between the ports of North and South America, having

generously expressed a willingness to oblige him in this respect, provided they were acquainted with an approved mode of skinning and preserving them, the following process is respectfully submitted, as being fully sufficient both for their purpose and that of the naturalist.* And tho no drawings have been, or will be made for this work, from any stuffed subjects, where living specimens of the same can be procured; yet the former serve a very important purpose; they enable the author to ascertain the real existence and residence of such subjects; and coming from various and remote parts of the continent, throw great light on the extent of range, and the migrations of various species of the feathered tribes; par-

* As soon as the bird is shot, let *memoranda* be taken of the length, the breadth (measuring from tip to tip of the expanded wings), color of the eyes, bill, legs and feet, and such particulars of its manners, &c. as may be known. Make a longitudinal incision under the wing, sufficiently large to admit the body to be taken out; disjoint the wing close to the body under the skin, and endeavour with a pair of scissars or penknife to reach the neck, which cut off; pass the skin carefully over to the other wing, which also disjoint and separate from the body, then over the whole body and thighs, which last cut off close to the knees; lastly, separate the whole skin from the body at the roots of the tail feathers, which must not be injured. Return to the neck and carefully pass the skin to, and beyond, the eyes, which scoop out; cut off the neck close to the scull, penetrate this way with your knife into the brain, which scrape completely out; dissect all the fleshy parts from the head, wings and skin; rub the whole inside with a solution of arsenic, sprinkle some of the same into the cavity of the brain, throat, &c.; stuff the vacuity of the brain and eyes with cotton, to their full dimensions; return the skin carefully back, arranging the eye lids and plumage; stuff the whole with cotton to its proper size and form, sew up the longitudinal incision, and, having carefully arranged the whole plumage, sprinkle it outwardly with a little powdered arsenic; place it in a close box, into which some camphor has been put, and cover it with cotton or ground tobacco. In the whole operation the greatest care must be taken not to soil the plumage with blood.

If arsenic cannot conveniently be had, common salt may be substituted.

ticulars the most interesting, because hitherto the most obscure and unsatisfactorily treated, of all others in the whole science of ornithology.

The author has now only to add, that as far as an acquisition of these depends on his own personal exertions, in ransacking our fields and forests, our sea shores, lakes, marshes and rivers; and in searching out and conversing with experienced and intelligent sportsmen and others on whose information he can venture to rely, he pledges himself, that no difficulty, fatigue or danger, shall deter him from endeavouring to collect information from every authentic source; hopeful that the able and enlightened friends of that Country whose Natural History he is thus endeavouring to illustrate, will not leave him unsupported.

ALEXANDER WILSON.

Philadelphia, January 1, 1810.

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AMERICAN ORNITHOLOGY.

MOCKING-BIRD.

TURDUS POLYGLOTTUS.

[Plate X.—Fig. 1.]

Mimic Thrush, LATH. *Syn.* III, p. 40, No. 42.—*Arct. Zool.* II, No. 194.—*Turdus polyglottus*, LINN *Syst.* I, p. 293, No. 10.—*Le grand Moqueur*, BRISS. *Orn.* II, p. 266, 29.—*Buff. Ois.* III, p. 325. *Pl. enl.* 558, fig. 1.—*Singing-bird, Mocking-bird, or Nightingale*, RAI *Syn.* p. 64, No. 5, p. 185, 31.—SLOAN. *Jam.* II, 306, No. 34.—*The Mock-bird*, CATESB. *Car.* I, *Pl.* 27.—PEALE'S *Museum*, No. 5288.

THIS celebrated and very extraordinary bird, in extent and variety of vocal powers, stands unrivalled by the whole feathered songsters of this or perhaps any other country; and shall receive from us, in this place, all that attention and respect which superior merit is justly entitled to.

Among the many novelties which the discovery of this part of the western continent first brought into notice, we may reckon that of the Mocking-bird; which is not only peculiar to the new world, but inhabits a very considerable extent of both North and South America; having been traced from the states of New England to Brazil; and also among many of the adjacent islands. They are, however, much more numerous in those states south, than in those north, of the river Delaware; being generally migratory in the latter, and resident (at least many of them) in the former. A warm climate, and low country, not far from the sea, seem most congenial to their nature; accordingly we find the species less numerous to the west than east of the great range of the Alleghany, in the same parallels of latitude. In the severe winter of 1808—9, I found these

birds, occasionally, from Fredericksburg in Virginia, to the southern parts of Georgia; becoming still more numerous the farther I advanced to the south. The berries of the red cedar, myrtle, holly, Cassine shrub, many species of smilax, together with gum berries, gall berries, and a profusion of others with which the luxuriant swampy thickets of those regions abound, furnish them with a perpetual feast. Winged insects, also, of which they are very fond, and remarkably expert at catching, abound there even in winter, and are an additional inducement to residency. Tho rather a shy bird in the northern states, here he appeared almost half domesticated, feeding on the cedars and among the thickets of smilax that lined the roads while I passed within a few feet; playing around the planter's door, and hopping along the shingles. During the month of February I sometimes heard a solitary one singing; but on the second of March, in the neighbourhood of Savannah, numbers of them were heard on every hand, vying in song with each other, and with the Brown Thrush, making the whole woods vocal with their melody. Spring was at that time considerably advanced; and the thermometer ranging between 70 and 78 degrees. On arriving at New York, on the twenty-second of the same month, I found many parts of the country still covered with snow, and the streets piled with ice to the height of two feet; while neither the Brown Thrush, nor Mocking-bird were observed, even in the lower parts of Pennsylvania, until the 20th of April.

The precise time at which the Mocking-bird begins to build his nest varies according to the latitude in which he resides. In the lower parts of Georgia he commences building early in April; but in Pennsylvania rarely before the tenth of May; and in New York, and the states of New England, still later. There are particular situations to which he gives the preference. A solitary thorn bush; an almost impenetrable thicket; an orange tree, cedar, or holly-bush, are favorite spots, and frequently selected. It is no great objection with him that these happen, sometimes, to

be near the farm or mansion house: always ready to defend, but never over anxious to conceal, his nest, he very often builds within a small distance of the house; and not unfrequently in a pear or apple tree; rarely at a greater height than six or seven feet from the ground. The nest varies a little with different individuals, according to the conveniency of collecting suitable materials. A very complete one is now lying before me, and is composed of the following substances. First a quantity of dry twigs and sticks, then withered tops of weeds of the preceding year, intermixed with fine straws, hay, pieces of wool and tow; and, lastly, a thick layer of fine fibrous roots, of a light brown color, lines the whole. The eggs, one of which is represented at fig. 2, are four, sometimes five, of a cinereous blue, marked with large blotches of brown. The female sits fourteen days; and generally produces two brood in the season, unless robbed of her eggs, in which case she will even build and lay the third time. She is, however, extremely jealous of her nest, and very apt to forsake it if much disturbed. It is even asserted by some of our bird dealers, that the old ones will actually destroy the eggs, and *poison* the young, if either the one or the other have been handled. But I cannot give credit to this unnatural report. I know, from my own experience, at least, that it is not always their practice; neither have I ever witnessed a case of the kind above mentioned. During the period of incubation neither cat, dog, animal or man, can approach the nest without being attacked. The cats, in particular, are persecuted whenever they make their appearance, till obliged to retreat. But his whole vengeance is most particularly directed against that mortal enemy of his eggs and young the Black snake. Whenever the insidious approaches of this reptile are discovered, the male darts upon it with the rapidity of an arrow, dexterously eluding its bite, and striking it violently and incessantly about the head, where it is very vulnerable. The snake soon becomes sensible of its danger, and seeks to escape; but the intrepid defender of his young re-

doubles his exertions, and, unless his antagonist be of great magnitude, often succeeds in destroying him. All its pretended powers of fascination avail it nothing against the vengeance of this noble bird. As the snake's strength begins to flag the Mocking-bird seizes and lifts it up, partly from the ground, beating it with his wings, and when the business is completed, he returns to the repository of his young, mounts the summit of the bush, and pours out a torrent of song in token of victory.

As it is of some consequence to be able to distinguish a young male bird from a female, the following marks may be attended to; by which some pretend to be able to distinguish them in less than a week after they are hatched. These are, the breadth and purity of the white on the wings, for that on the tail is not so much to be depended on. This white, in a full grown male-bird, spreads over the whole nine primaries, down to, and considerably below, their coverts, which are also white, sometimes slightly tipped with brown. The white of the primaries also extends equally far on both vanes of the feathers. In the female the white is less pure, spreads over only seven or eight of the primaries, does not descend so far, and extends considerably farther down on the *broad* than on the *narrow* side of the feathers. The black is also more of a brownish cast.

The young birds, if intended for the cage, ought not to be left till they are nearly ready to fly; but should be taken rather young than otherwise; and may be fed, every half hour, with milk thickened with Indian meal; mixing occasionally with it a little fresh meat, cut or minced very fine. After they begin to eat of their own accord, they ought still to be fed by hand, tho at longer intervals, and a few cherries, strawberries, &c. now and then thrown in to them. The same sort of food, adding grasshoppers and fruit, particularly the various kinds of berries in which they delight; and plenty of clear fine gravel, is found very proper for them after they are grown up. Should the bird at any time appear sick or de-

jected, a few spiders thrown in to him will generally remove these symptoms of disease.

If the young bird is designed to be taught by an old one, the best singer should be selected for this office, and no other allowed to be beside him. Or if by the bird organ, or mouth-whistling, it should be begun early, and continued, pretty constantly, *by the same person*, until the scholar, who is seldom inattentive, has completely acquired his lesson. The best singing birds, however, in my own opinion, are those that have been reared in the country, and educated under the tuition of the feathered choristers of the surrounding fields, groves, woods and meadows.

The plumage of the Mocking-bird, tho none of the homeliest, has nothing gaudy or brilliant in it; and, had he nothing else to recommend him, would scarcely entitle him to notice, but his figure is well proportioned, and even handsome. The ease, elegance and rapidity of his movements, the animation of his eye, and the intelligence he displays in listening and laying up lessons from almost every species of the feathered creation within his hearing, are really surprising, and mark the peculiarity of his genius. To these qualities we may add that of a voice full, strong, and musical, and capable of almost every modulation, from the clear mellow tones of the Wood Thrush, to the savage scream of the Bald Eagle. In measure and accent, he faithfully follows his originals. In force and sweetness of expression, he greatly improves upon them. In his native groves, mounted on the top of a tall bush or half-grown tree, in the dawn of dewy morning, while the woods are already vocal with a multitude of warblers, his admirable song rises pre-eminent over every competitor. The ear can listen to *his* music alone, to which that of all the others seems a mere accompaniment. Neither is this strain altogether imitative. His own native notes, which are easily distinguishable by such as are well acquainted with those of our various song birds, are bold and full, and varied seemingly beyond all limits. They consist of short expressions of

two, three, or at the most five or six syllables; generally interspersed with imitations, and all of them uttered with great emphasis and rapidity; and continued, with undiminished ardour, for half an hour, or an hour, at a time. His expanded wings and tail, glistening with white, and the buoyant gaiety of his action, arresting the eye, as his song most irresistably does the ear. He sweeps round with enthusiastic ecstasy—he mounts and descends as his song swells or dies away; and, as my friend Mr. Bartram has beautifully expressed it, “He bounds aloft with the celerity of an arrow, “as if to recover or recal his very soul, expired in the last elevated “strain.”* While thus exerting himself, a bystander destitute of sight, would suppose that the whole feathered tribes had assembled together, on a trial of skill; each striving to produce his utmost effect; so perfect are his imitations. He many times deceives the sportsman, and sends him in search of birds that perhaps are not within miles of him; but whose notes he exactly imitates: even birds themselves are frequently imposed on by this admirable mimick, and are decoyed by the fancied calls of their mates; or dive, with precipitation, into the depth of thickets, at the scream of what they suppose to be the Sparrow Hawk.

The Mocking-bird loses little of the power and energy of his song by confinement. In his domesticated state, when he commences his career of song, it is impossible to stand by uninterested. He whistles for the dog; Cæsar starts up, wags his tail, and runs to meet his master. He squeaks out like a hurt chicken, and the hen hurries about with hanging wings, and bristled feathers, clucking to protect its injured brood.—The barking of the dog, the mew-ing of the cat, the creaking of a passing wheelbarrow, follow, with great truth and rapidity. He repeats the tune taught him by his master, tho of considerable length, fully and faithfully. He runs over the quiverings of the Canary, and the clear whistlings of the

* Travels, p. 32. Introd.

Virginia Nightingale, or Red-bird, with such superior execution and effect, that the mortified songsters feel their own inferiority, and become altogether silent; while he seems to triumph in their defeat by redoubling his exertions.

This excessive fondness for variety, however, in the opinion of some, injures his song. His elevated imitations of the Brown Thrush are frequently interrupted by the crowing of cocks; and the warblings of the Blue-bird, which he exquisitely manages, are mingled with the screaming of swallows, or the cackling of hens; amidst the simple melody of the Robin we are suddenly surprised by the shrill reiterations of the Whippoorwill; while the notes of the Killdeer, Blue Jay, Martin, Baltimore, and twenty others, succeed, with such imposing reality, that we look round for the originals, and discover, with astonishment, that the sole performer in this singular *concert* is the admirable bird now before us. During this exhibition of his powers, he spreads his wings, expands his tail, and throws himself around the cage in all the ecstasy of enthusiasm, seeming not only to sing, but to dance, keeping time to the measure of his own music. Both in his native and domesticated state, during the solemn stillness of night, as soon as the moon rises in silent majesty, he begins his delightful solo; and serenades us the live long night with a full display of his vocal powers, making the whole neighbourhood ring with his inimitable medley.*

* The hunters in the southern states, when setting out on an excursion by night, as soon as they hear the Mocking-bird begin to sing know that the moon is rising.

A certain anonymous author, speaking of the Mocking-birds in the island of Jamaica, and their practice of singing by moonlight, thus gravely philosophizes, and attempts to account for the habit. "It is not certain," says he, "whether they are kept so wakeful by the clearness of the light, or by any extraordinary attention and vigilance, at such times, for the protection of their nursery from the piratical assaults of the Owl and the night Hawk. It is possible that *fear* may operate upon them, much in the same manner as it has been observed to affect some cowardly persons, who whistle stoutly in a lonesome place, while their mind is agitated with the terror of thieves or hobgoblins." Hist. of Jam. v. III, p. 894, quarto.

Were it not to seem invidious in the eyes of foreigners, I might in this place make a comparative statement between the powers of the Mocking-bird, and the only bird I believe in the world worthy of being compared with him, the European Nightingale. This, however, I am unable to do from my own observation, having never myself heard the song of the latter; and even if I had, perhaps something might be laid to the score of *partiality*, which, as a faithful biographer I am anxious to avoid. I shall, therefore, present the reader with the opinion of a distinguished English naturalist, and curious observer, on this subject, the Hon. Daines Barrington, who at the time he made the communication was vice president of the Royal Society, to which they were addressed.*

“It may not be improper, here,” says this gentleman, “to consider whether the Nightingale may not have a very formidable competitor in the American Mocking-bird; tho almost all travellers agree, that the concert in the European woods is superior to that of the other parts of the globe.” “I have happened, however, to hear the American Mocking-bird, in great perfection, at Messrs. Vogels and Scotts, in Love-lane, Eastcheap. This bird is believed to be still living, and hath been in England these six years. During the space of a minute he imitated the Wood-lark, Chaffinch, Blackbird, Thrush and Sparrow; I was told also that he would bark like a dog; so that the bird seems to have no choice in his imitations; tho his pipe comes nearest to our Nightingale of any bird I have yet met with. With regard to the original notes, however, of this bird, we are still at a loss, as this can only be known by those who are accurately acquainted with the song of the other American birds. Kalm indeed informs us, that the natural song is excellent;† but this traveller seems not to have been long enough in America to have distinguished what were the genuine notes: with us mimics do not often succeed but

* Phil. Trans. vol. LXII, part ii, p. 284.

† Travels, vol. I, p. 219.

“in imitations. I have little doubt, however, but that this bird
“would be fully equal to the song of the Nightingale in its whole
“compass; but then, from the attention which the *Mocker* pays to
“any other sort of disagreeable noise, these capital notes would
“be always debased by a bad mixture.”

On this extract I shall make a few remarks. If, as is here
conceded, the Mocking-bird be fully equal to the song of the
Nightingale; and, as I can with confidence add, not only to that
but to the song of almost every other bird; besides being capable
of exactly imitating various other sounds and voices of animals, his
vocal powers are unquestionably superior to those of the Nightin-
gale, which possesses its own native notes alone. Further, if we
consider, as is asserted by Mr. Barrington, that “one reason of the
“Nightingale’s being more attended to than others is, that it sings
“in the night;” and if we believe with Shakspeare, that

“The Nightingale, if she should sing by day
When every goose is cackling, would be thought
No better a musician than a Wren,”

what must we think of that bird, who, in the glare of day, when a
multitude of songsters are straining their throats in melody, over-
powers all competition; and by the superiority of his voice, ex-
pression and action, not only attracts every ear, but frequently
strikes dumb his mortified rivals;—When the silence of night as
well as the bustle of day, bear witness to his melody; and when
even in captivity, in a foreign country, he is declared by the best
judges in that country, to be fully equal to the song of their sweet-
est bird *in its whole compass*? The supposed degradation of his
song by the introduction of extraneous sounds, and unexpected imi-
tations, is in fact, one of the chief excellencies of this bird; as these
changes give a perpetual novelty to his strain, keep attention con-
stantly awake, and impress every hearer with a deeper interest in

what is to follow. In short, if we believe in the truth of that mathematical axiom, that the whole is greater than a part, all that is excellent or delightful, amusing or striking, in the music of birds, must belong to *that* admirable songster, whose vocal powers are equal to the whole compass of their whole strains.

The native notes of the Mocking-bird have considerable resemblance to those of the Brown Thrush, but may easily be distinguished by their greater rapidity, sweetness, energy of expression and variety. Both, however, have in many parts of the United States, particularly in those to the south, obtained the name of *Mocking-bird*. The first, or Brown Thrush, from its inferiority of song being called the French, and the other the English Mocking-bird. A mode of expression probably originating in the prejudices of our forefathers; with whom every thing *French* was inferior to every thing *English*.*

The Mocking-bird is frequently taken in trap-cages, and by proper management may be made sufficiently tame to sing. The upper parts of the cage (which ought to be of wood) should be kept covered, until the bird becomes a little more reconciled to confinement. If placed in a wire cage, uncovered, he will soon destroy himself in attempting to get out. These birds, however, by proper treatment may be brought to sing perhaps superior to those raised by hand, and cost less trouble. The opinion which the naturalists of Europe entertain of the great difficulty of raising the Mocking-bird, and, that not one in ten survives, is very incorrect. A person called on me a few days ago, with twenty-nine of these birds, old and young, which he had carried about the fields with him for several days, for the convenience of feeding them while engaged in trapping others. He had carried them thirty miles, and intended carrying them ninety-six miles farther, *viz.* to New York;

* The observations of Mr. Barrington, in the paper above referred to, make this supposition still more probable. "Some nightingales," says he, "are so vastly inferior, that the bird-catchers will not keep them, branding them with the name of *Frenchmen*." p. 283.

and told me, that he did not expect to lose one out of ten of them. Cleanliness, and regularity in feeding, are the two principal things to be attended to, and these rarely fail to succeed.

The eagerness with which the nest of the Mocking-bird is sought after in the neighbourhood of Philadelphia, has rendered this bird extremely scarce for an extent of several miles around the city. In the country round Wilmington and Newcastle they are very numerous, from whence they are frequently brought here for sale. The usual price of a singing bird is from seven to fifteen, and even twenty dollars. I have known fifty dollars paid for a remarkable fine singer; and one instance where one hundred dollars were refused for a still more extraordinary one.

Attempts have been made to induce these charming birds to pair, and rear their young in a state of confinement, and the result has been such as to prove it, by proper management, perfectly practicable. In the spring of 1808, a Mr. Klein, living in North Seventh street, Philadelphia, partitioned off about twelve feet square in the third story of his house. This was lighted by a pretty large wire-grated window. In the center of this small room he planted a cedar bush, five or six feet high, in a box of earth; and scattered about a sufficient quantity of materials suitable for building. Into this place a male and female Mocking-bird were put, and soon began to build. The female laid five eggs, all of which she hatched, and fed the young with great affection until they were nearly able to fly. Business calling the proprietor from home, for two weeks, he left the birds to the care of his domestics; and on his return found to his great regret, that they had been neglected in food. The young ones were all dead, and the parents themselves nearly famished. The same pair have again commenced building this season, in the same place, and have at this time, July 4, three young, likely to do well. The place might be fitted up with various kinds of shrubbery, so as to resemble their native thickets; and ought to be as remote from noise and interruption

of company as possible, and strangers rarely allowed to disturb or even approach them.

The Mocking-bird is nine and a half inches long, and thirteen in breadth. Some individuals are however larger and some smaller, those of the first hatch being uniformly the biggest and stoutest.* The upper parts of the head, neck and back, are a dark, brownish ash; and when new moulted, a fine light grey; the wings and tail are nearly black, the first and second rows of coverts tipped with white; the primary coverts, in some males, are wholly white, in others tinged with brown. The three first primaries are white from their roots as far as their coverts; the white on the next six extends from an inch to one and three-fourths farther down, descending equally on both sides of the feather; the tail is cuneiform, the two exterior feathers wholly white, the rest, except the middle ones, tipped with white; the chin is white; sides of the neck, breast, belly and vent a brownish white, much purer in wild birds than in those that have been domesticated; iris of the eye yellowish cream colored, inclining to golden; bill black, the base of the lower mandible whitish; legs and feet black, and strong. The female very much resembles the male; what difference there is has been already pointed out in a preceding part of this account. The breast of the young bird is spotted like that of the Thrush.

Mr. William Bartram observes of the Mocking-bird, that “formerly, say thirty or forty years ago, they were numerous, and “often staid all winter with us, or the year through, feeding on the “berries of Ivy, smilax, grapes, persimmons, and other berries. “The Ivy (*Hedera helix*) they were particularly fond of, tho a “native of Europe. We have an ancient plant adhering to the “wall of the house, covering many yards of surface; this vine is

* Many people are of opinion that there are two sorts, the large and the small Mocking-bird; but after examining great numbers of these birds in various regions of the United States, I am satisfied that this variation of size is merely accidental, or owing to the circumstance above mentioned.

“very fruitful, and here many would feed and lodge during the
“winter, and in very severe cold weather sit on the top of the
“chimney to warm themselves.” He also adds, “I have observed
“that the Mocking-bird ejects from his stomach through his mouth
“the hard kernels of berries, such as smilax, grapes, &c. retain-
“ing the pulpy part.”*

* Letter from Mr. Bartram to the author.

HUMMING-BIRD.

TROCHILUS COLUBRIS.

[Plate X.—Figs. 3 and 4.]

Trochilus colubris, LINN. *Syst.* I, p. 191, No. 12.—*L'Oiseau mouche à gorge rouge de la Caroline*, BRISS. *Orn.* III, p. 716, No. 13, t. 36, fig. 6.—*Le Rubis*, BUFF. *Ois.* VI, p. 13.—*Humming-bird*, CATESB. *Car.* I, 65.—*Red-throated Humming-bird*, EDW. I, 38, male and female.—LATH. *Syn.* II, 769, No. 35.—PEALE'S *Museum*, No. 2520.

NATURE in every department of her works seems to delight in variety; and the present subject of our history is almost as singular for its minuteness, beauty, want of song and manner of feeding, as the preceding is for unrivalled excellence of notes, and plainness of plumage. Tho this interesting and beautiful genus of birds comprehends upwards of seventy species, all of which, with a very few exceptions, are natives of America and its adjacent islands, it is yet singular, that the species now before us should be the only one of its tribe that ever visits the territory of the United States.

According to the observations of my friend Mr. Abbot, of Savannah, in Georgia, who has been engaged these thirty years in collecting and drawing subjects of natural history in that part of the country, the Humming-bird makes its first appearance there, from the south, about the twenty-third of March; two weeks earlier than it does in the county of Burke, sixty miles higher up the country towards the interior; and at least five weeks sooner than it reaches this part of Pennsylvania. As it passes on to the northward as far as the interior of Canada, where it is seen in great numbers,* the wonder is excited how so feebly constructed and delicate

* Mr. M'Kenzie speaks of seeing a "beautiful Humming-bird" near the head of the Unjigah or Peace river, in lat. 54°; but has not particularized the species.

a little creature can make its way over such extensive regions of lakes and forests, among so many enemies, all its superiors in strength and magnitude. But its very *minuteness*, the rapidity of its flight, which almost eludes the eye, and that admirable instinct, reason, or whatever else it may be called, and daring courage which heaven has implanted in its bosom, are its guides and protectors. In these we may also perceive the reason, why an all-wise Providence has made this little hero an exception to a rule which prevails almost universally thro nature, *viz.* that the smallest species of a tribe are the most prolific. The Eagle lays one, sometimes two, eggs; the Crow five; the Titmouse seven or eight; the small European Wren fifteen; the Humming-bird *two*: and yet this latter is abundantly more numerous in America than the Wren is in Europe.

About the twenty-fifth of April the Humming-bird usually arrives in Pennsylvania; and about the tenth of May begins to build its nest. This is generally fixed on the upper side of a horizontal branch, not among the twigs, but on the body of the branch itself. Yet I have known instances where it was attached by the side to an old moss-grown trunk; and others where it was fastened on a strong rank stalk, or weed, in the garden; but these cases are rare. In the woods it very often chooses a white oak sapling to build on; and in the orchard, or garden, selects a pear tree for that purpose. The branch is seldom more than ten feet from the ground. The nest is about an inch in diameter, and as much in depth. A very complete one is now lying before me, and the materials of which it is composed are as follow:—The outward coat is formed of small pieces of a species of bluish grey lichen that vegetates on old trees and fences, thickly glued on with the saliva of the bird, giving firmness and consistency to the whole, as well as keeping out moisture. Within this are thick matted layers of the fine wings of certain flying seeds, closely laid together; and, lastly, the downy substance from the great mullein, and from the stalks of the common fern, lines the whole. The base of the nest

is continued round the stem of the branch, to which it closely adheres; and, when viewed from below, appears a mere mossy knot or accidental protuberance. The eggs are two, pure white, and of equal thickness at both ends. The nest and eggs in the plate were copied with great precision, and by actual measurement, from one just taken in from the woods. On a person's approaching their nest, the little proprietors dart around with a humming sound, passing frequently within a few inches of one's head; and should the young be newly hatched, the female will resume her place on the nest even while you stand within a yard or two of the spot. The precise period of incubation I am unable to give; but the young are in the habit, a short time before they leave the nest, of thrusting their bills into the mouths of their parents, and sucking what they have brought them. I never could perceive that they carried them any animal food; tho, from circumstances that will presently be mentioned, I think it highly probable they do. As I have found their nests with eggs so late as the twelfth of July, I do not doubt but that they frequently, and perhaps usually, raise two brood in the same season.

The Humming-bird is extremely fond of tubular flowers, and I have often stopt, with pleasure, to observe his manœuvres among the blossoms of the trumpet flower. When arrived before a thicket of these that are full blown, he poises, or suspends himself on wing, for the space of two or three seconds, so steadily, that his wings become invisible, or only like a mist; and you can plainly distinguish the pupil of his eye looking round with great quickness and circumspection; the glossy golden green of his back, and the fire of his throat, dazzling in the sun, form altogether a most interesting appearance. The position into which his body is usually thrown while in the act of thrusting his slender tubular tongue into the flower, to extract its sweets, is exhibited in the figure on the plate. When he alights, which is frequently, he always prefers the small dead twigs of a tree, or bush, where he dresses and arranges his

plumage with great dexterity. His only note is a single chirp, not louder than that of a small cricket or grasshopper, generally uttered while passing from flower to flower, or when engaged in fight with his fellows; for when two males meet at the same bush, or flower, a battle instantly takes place; and the combatants ascend in the air, chirping, darting and circling around each other, till the eye is no longer able to follow them. The conqueror, however, generally returns to the place, to reap the fruits of his victory. I have seen him attack, and for a few moments tease the King-bird; and have also seen him, in his turn, assaulted by a humble-bee, which he soon put to flight. He is one of those few birds that are universally beloved; and amidst the sweet dewy serenity of a summer's morning, his appearance among the arbours of honeysuckles, and beds of flowers, is truly interesting.

When morning dawns, and the blest sun, again
Lifts his red glories from the Eastern main,
Then thro our woodbines, wet with glittering dews,
The flower-fed Humming-bird his round pursues;
Sips with inserted tube, the honeyed blooms,
And chirps his gratitude as round he roams;
While richest roses, tho in crimson drest,
Shrink from the splendor of his gorgeous breast;
What heav'nly tints in mingling radiance fly!
Each rapid movement gives a different dye;
Like scales of burnish'd gold they dazzling show,
Now sink to shade.....now like a furnace glow!

The singularity of this little bird has induced many persons to attempt to raise them from the nest, and accustom them to the cage. Mr. Coffey, of Fairfax county, Virginia, a gentleman who has paid great attention to the manners and peculiarities of our native birds, told me, that he raised and kept two, for some months,

in a cage; supplying them with honey dissolved in water, on which they readily fed. As the sweetness of the liquid frequently brought small flies and gnats about the cage, and cup, the birds amused themselves by snapping at them on wing, and swallowing them with eagerness, so that these insects formed no inconsiderable part of their food. Mr. Charles Wilson Peale, proprietor of the Museum, tells me, that he had two young Humming-birds which he raised from the nest. They used to fly about the room; and would frequently perch on Mrs. Peale's shoulder to be fed. When the sun shone strongly into the chamber, he has observed them darting after the motes that floated in the light, as Flycatchers would after flies. In the summer of 1803 a nest of young Humming-birds was brought me, that were nearly fit to fly. One of them actually flew out by the window the same evening, and falling against a wall, was killed. The other refused food, and the next morning I could but just perceive that it had life. A lady in the house undertook to be its nurse, placed it in her bosom, and as it began to revive, dissolved a little sugar in her mouth, into which she thrust its bill, and it sucked with great avidity. In this manner it was brought up until fit for the cage. I kept it upwards of three months, supplied it with loaf sugar dissolved in water, which it preferred to honey and water, gave it fresh flowers every morning sprinkled with the liquid, and surrounded the space in which I kept it with gauze, that it might not injure itself. It appeared gay, active and full of spirit, hovering from flower to flower as if in its native wilds, and always expressed by its motions and chirping, great pleasure at seeing fresh flowers introduced to its cage. Numbers of people visited it from motives of curiosity, and I took every precaution to preserve it, if possible, thro the winter. Unfortunately, however, by some means it got at large, and, flying about the room, so injured itself that it soon after died.

This little bird is extremely susceptible of cold, and if long deprived of the animating influence of the sun beams, droops and

soon dies. A very beautiful male was brought me this season, which I put into a wire cage, and placed in a retired shaded part of the room. After fluttering about for some time, the weather being uncommonly cool, it clung by the wires, and hung in a seemingly torpid state for a whole forenoon. No motion whatever of the lungs could be perceived, on the closest inspection; tho at other times this is remarkably observable; the eyes were shut; and when touched by the finger it gave no signs of life or motion. I carried it out to the open air, and placed it directly in the rays of the sun, in a sheltered situation. In a few seconds respiration became very apparent; the bird breathed faster and faster, opened its eyes, and began to look about, with as much seeming vivacity as ever. After it had completely recovered, I restored it to liberty; and it flew off to the withered top of a pear tree, where it sat for some time dressing its disordered plumage, and then shot off like a meteor.

The flight of the Humming-bird from flower to flower, greatly resembles that of a bee; but is so much more rapid, that the latter appears a mere loiterer to him. He poises himself on wing, while he thrusts his long slender tubular tongue into the flowers in search of food. He sometimes enters a room by the window, examines the bouquets of flowers, and passes out by the opposite door or window. He has been known to take refuge in a hot-house during the cool nights of autumn; to go regularly out in the morning, and to return as regularly in the evening, for several days together.

The Humming-bird has, hitherto, been supposed to subsist altogether on the honey, or liquid sweets, which it extracts from flowers. One or two curious observers have indeed remarked, that they have found evident fragments of insects in the stomach of this species; but these have been generally believed to have been taken in by accident. The few opportunities which Europeans have to determine this point by observations made on the living bird, or by dissection of the newly-killed one, have rendered this mistaken opinion almost general in Europe. For myself I can speak deci-

sively on this subject. I have seen the Humming-bird for half an hour at a time darting at those little groups of insects that dance in the air in a fine summer evening, retiring to an adjoining twig to rest, and renewing the attack with a dexterity that sets all our other Flycatchers at defiance. I have opened from time to time great numbers of these birds; have examined the contents of the stomach with suitable glasses, and in three cases out of four, have found these to consist of broken fragments of insects. In many subjects entire insects of the coleopterous class, but very small, were found unbroken. The observations of Mr. Coffey as detailed above, and the remarks of my worthy friend Mr. Peale, are corroborative of these facts. It is well known that the Humming-bird is particularly fond of tubular flowers where numerous small insects of this kind resort to feed on the farina, &c. and there is every reason for believing that he is as often in search of these insects as of honey; and that the former compose at least as great a portion of his usual sustenance as the latter. If this food be so necessary for the parents there is no doubt but the young also occasionally partake of it.

To enumerate all the flowers of which this little bird is fond, would be to repeat the names of half our American Flora. From the blossoms of the towering poplar, or tulip tree, thro a thousand intermediate flowers to those of the humble larkspur, he ranges at will, and almost incessantly. Every period of the season produces a fresh multitude of new favorites. Towards the month of September there is a yellow flower which grows in great luxuriance along the sides of creeks and rivers, and in low moist situations; it grows to the height of two or three feet, and the flower, which is about the size of a thimble, hangs in the shape of a cap of liberty above a luxuriant growth of green leaves. It is the *Balsamina noli me tangere* of botanists, and is the greatest favorite with the Humming-bird of all our other flowers. In some places where these plants abound you may see at one time ten or twelve Humming-birds

darting about, and fighting with and pursuing each other. About the twentieth of September they generally retire to the south. I have, indeed, sometimes seen a solitary individual on the twenty-eighth and thirtieth of that month, and sometimes even in October; but these cases are rare. About the beginning of November they pass the southern boundary of the United States into Florida.

The Humming-bird is three inches and a half in length, and four and a quarter in extent; the whole back, upper part of the neck, sides under the wings, tail coverts, and two middle feathers of the tail, are of a rich golden green; the tail is forked, and, as well as the wings, of a deep brownish purple; the bill and eyes are black; the legs and feet, both of which are extremely small, are also black; the bill is straight, very slender, a little inflated at the tip, and very incompetent to the exploit of penetrating the tough sinewy side of a crow, and precipitating it from the clouds to the earth, as Charlevoix would persuade his readers to believe.* The nostrils are two small oblong slits, situated at the base of the upper mandible, scarcely perceivable when the bird is dead, tho very distinguishable and prominent when living; the sides of the belly and belly itself dusky white, mixed with green; but what constitutes the chief ornament of this little bird, is the splendor of the feathers of his throat, which, when placed in a proper position, glow with all the brilliancy of the ruby. These feathers are of singular strength and texture, lying close together like scales, and vary when moved before the eye from a deep black to a fiery crimson and burning orange. The female is destitute of this ornament; but differs little in other appearance from the male; her tail is tipped with white, and the whole lower parts are of the same tint. The young birds of the first season, both male and female, have the tail tipped with white, and the whole lower parts nearly white; in the month of September the ornamental feathers on the throat of the young males begin to appear.

* Hist. de la Nov. France, III, p. 185.

On dissection the heart was found to be remarkably large, nearly as big as the cranium, and the stomach, tho distended with food, uncommonly small, not exceeding the globe of the eye, and scarcely more than one-sixth part as large as the heart; the fibres of the last were also exceedingly strong. The brain was in large quantity, and very thin; the tongue, from the tip to an extent equal with the length of the bill, was perforated, forming two closely attached parallel and cylindrical tubes; the other extremities of the tongue corresponded exactly to those of the Woodpecker, passing up the hind head, and reaching to the base of the upper mandible. These observations were verified in five different subjects, all of whose stomachs contained fragments of insects, and some of them whole ones.

TOWHE BUNTING.

EMBERIZA ERYTHROPTALMA.

[Plate X.—Fig. 5.]

Fringilla erythrophthalma, LINN. *Syst.* p. 318, 6.—*Le Pinson de la Caroline*, BRISS. *Orn.* III, p. 169, 44.—BUFF. *Ois.* IV, p. 141.—LATH. II, p. 199, No. 43.—CATESB. *Car.* I, Pl. 34.—PEALE'S *Museum*, No. 5970.

THIS is a very common, but humble and inoffensive species, frequenting close sheltered thickets, where it spends most of its time in scratching up the leaves for worms, and for the larvæ and eggs of insects. It is far from being shy, frequently suffering a person to walk round the bush or thicket where it is at work, without betraying any marks of alarm; and when disturbed, uttering the notes *Tow-hè*, repeatedly. At times the male mounts to the top of a small tree, and chants his few simple notes for an hour at a time. These are loud, not unmusical, something resembling those of the Yellow-hammer of Britain, but more mellow, and more varied. He is fond of thickets with a southern exposure, near streams of water, and where there is plenty of dry leaves; and is found, generally, over the whole United States. He is not gregarious, and you seldom see more than two together. About the middle or twentieth of April they arrive in Pennsylvania, and begin building about the first week in May. The nest is fixed on the ground among the dry leaves, near, and sometimes under, a thicket of briars, and is large and substantial. The outside is formed of leaves and pieces of grape-vine bark, and the inside of fine stalks of dry grass, the cavity completely sunk beneath the surface of the ground, and *sometimes* half covered above with dry grass or hay. The eggs are usually five, of a pale flesh color, thickly marked

with specks of rufous, most numerous near the great end (see fig. 6). The young are produced about the beginning of June; and a second brood commonly succeeds in the same season. This bird rarely winters north of the state of Maryland; retiring from Pennsylvania to the south about the twelfth of October. Yet in the middle districts of Virginia, and thence south to Florida, I found it abundant during the months of January, February and March. Its usual food is obtained by scratching up the leaves; it also feeds, like the rest of its tribe, on various hard seeds and gravel; but rarely commits any depredations on the harvest of the husbandman; generally preferring the woods, and traversing the bottom of fences sheltered with briars. He is generally very plump and fat; and when confined in a cage soon becomes familiar. In Virginia he is called the Bulfinch; in many places the Towhè-bird; in Pennsylvania the Chewink, and by others the Swamp Robin. He contributes a little to the harmony of our woods in spring and summer; and is remarkable for the cunning with which he conceals his nest. He shews great affection for his young; and the deepest marks of distress on the appearance of their mortal enemy the Black snake.

The specific name which Linnæus has bestowed on this bird is deduced from the color of the iris of its eye, which, in those that visit Pennsylvania, is dark red. But I am suspicious that this color is not permanent, but subject to a periodical change. I examined a great number of these birds in the month of March, in Georgia, every one of which had the iris of the eye *white*. Mr. Abbot of Savannah assured me, that at this season, every one of these birds he shot had the iris white, while at other times it was red; and Mr. Elliot, of Beaufort, a judicious naturalist, informed me, that in the month of February he killed a Towhe Bunting with one eye red and the other white! It should be observed that the iris of the young bird's eye is of a chocolate color, during its residence in Pennsylvania; perhaps this may brighten into a white during win-

ter, and these may have been all birds of the preceding year, which had not yet received the full color of the eye.

The Towhe Bunting is eight inches and a half long, and eleven broad; above black, which also descends rounding on the breast, the sides of which are bright bay, spreading along under the wings; the belly is white, the vent pale rufous; a spot of white marks the wing just below the coverts, and another a little below that extends obliquely across the primaries; the tail is long, nearly even at the end; the three exterior feathers white for an inch or so from the tips, the outer one wholly white, the middle ones black; the bill is black; the legs and feet a dirty flesh color, and strong for scratching up the ground. The female differs in being of a light reddish brown in those parts where the male is black; and in having the bill more of a light horn color.

CARDINAL GROSBEAK.

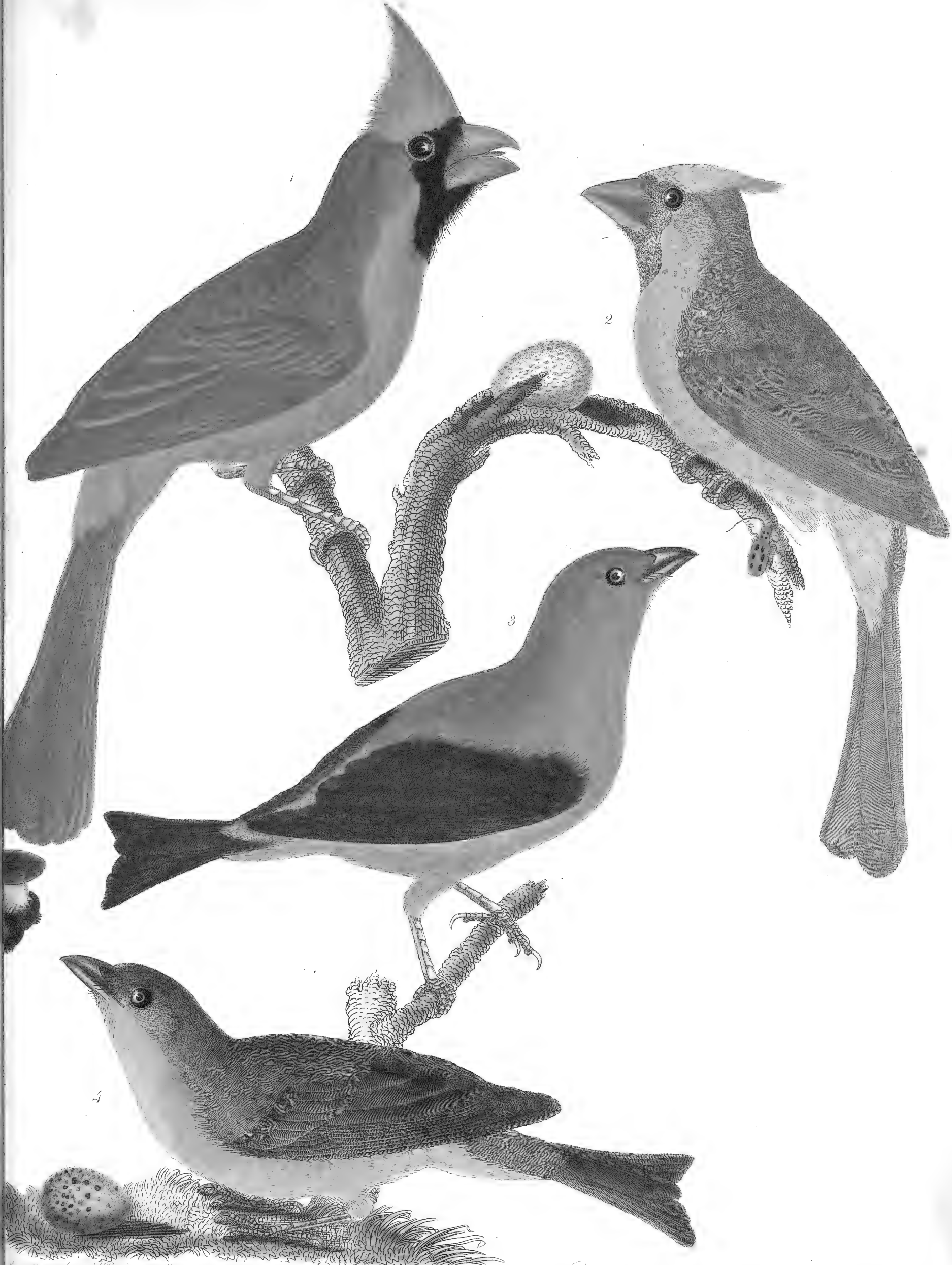
LOXIA CARDINALIS.

[Plate XI.—Figs. 1 and 2.]

LINN. *Syst.* I, p. 300, No. 5.—*Le Gros-bec de Virginie*, BRISS. *Orn.* III, p. 255, No. 17.
 —BUFF. III, p. 458, pl. 28. *Pl. enl.* 37.—LATH. *Syn.* II, p. 118, No. 13.—*Cardinal*,
 BROWN'S *Jam.* p. 647.—PEALE'S *Museum*, No. 5668.

THIS is one of our most common cage birds; and is very generally known, not only in North America, but even in Europe; numbers of them having been carried over both to France and England, in which last country they are usually called Virginia Nightingales. To this name, Dr. Latham observes, “they are fully entitled,” from the clearness and variety of their notes, which, both in a wild and domestic state, are very various and musical; many of them resemble the high notes of a fife, and are nearly as loud. They are in song from March to September, beginning at the first appearance of dawn, and repeating a favorite stanza, or passage, twenty or thirty times successively; sometimes with little intermission for a whole morning together; which, like a good story too often repeated, becomes at length tiresome and insipid. But the sprightly figure, and gaudy plumage of the Red-bird, his vivacity, strength of voice, and actual variety of note, and the little expense with which he is kept, will always make him a favorite.

This species, like the Mocking-bird, is more numerous to the east of the great range of the Alleghany mountains; and inhabits from New England to Carthagera. Michaux the younger, son to the celebrated botanist, informed me, that he found this bird numerous in the Bermudas. In Pennsylvania and the northern states it is rather a scarce species; but thro the whole lower parts of the southern states, in the neighbourhood of settlements, I found them



From Nature by A. Wilson. 1. Cardinal Grosbeak. 2. Female & egg. 3. Red Tanager. 4. Female & egg.

much more numerous; their clear and lively notes, in the months of January and February, being, at that time, almost the only music of the season. Along the road sides and fences I found them hovering in half dozens together, associated with snow birds and various kinds of sparrows. In the northern states they are migratory; but in the lower parts of Pennsylvania they reside during the whole year, frequenting the borders of creeks and rivulets, in sheltered hollows covered with holly, laurel, and other evergreens. They love also to reside in the vicinity of fields of Indian corn, a grain that constitutes their chief and favorite food. The seeds of apples, cherries, and of many other sorts of fruit, are also eaten by them; and they are accused of destroying bees.

In the months of March and April the males have many violent engagements for their favorite females. Early in May in Pennsylvania they begin to prepare their nest, which is very often fixed in a holly, cedar or laurel bush. Outwardly it is constructed of small twigs, tops of dry weeds, and slips of vine bark, and lined with stalks of fine grass. The female lays four eggs thickly marked all over with touches of brownish olive, on a dull white ground, as represented in the figure; and they usually raise two brood in the season. These birds are rarely raised from the nest for singing, being so easily taken in trap cages, and soon domesticated. By long confinement, and perhaps unnatural food, they are found to fade in color, becoming of a pale whitish red. If well taken care of, however, they will live to a considerable age. There is at present in Mr. Peale's museum, the stuffed skin of one of these birds, which is there said to have lived in a cage upwards of twenty-one years.

The opinion which so generally prevails in England, that the music of the groves and woods of America is far inferior to that of Europe, I, who have a thousand times listened to both, cannot admit to be correct. We cannot with fairness draw a comparison between the depth of the forest in America, and the cultivated

fields of England; because, it is a well known fact, that singing birds seldom frequent the former, in any country. But let the latter places be compared with the like situations in the United States, and the superiority of song, I am fully persuaded, would justly belong to the western continent. The few of our song birds that have visited Europe extort admiration from the best judges. "The notes of the Cardinal Grosbeak," says Latham "are almost equal to those of the Nightingale." Yet these notes, clear and excellent as they are, are far inferior to those of the Wood Thrush; and even to those of the Brown Thrush or Thrasher. Our inimitable Mocking-bird is also acknowledged, by themselves, to be fully equal to the song of the Nightingale "in its whole compass." Yet these are not one-tenth of the number of our singing birds. Could these people be transported to the borders of our woods and settlements, in the month of May, about half an hour before sunrise, such a ravishing concert would greet their ear as they have no conception of.

The males of the Cardinal Grosbeak, when confined together in a cage, fight violently. On placing a looking-glass before the cage, the gesticulations of the tenant are truly laughable; yet with this he soon becomes so well acquainted, that, in a short time, he takes no notice whatever of it; a pretty good proof that he has discovered the true cause of the appearance to proceed from himself. They are hardy birds, easily kept, sing six or eight months in the year, and are most lively in wet weather. They are generally known by the names, Red-bird, Virginia Red-bird, Virginia Nightingale, and Crested Red-bird, to distinguish them from another beautiful species which is represented on the same plate.

I do not know that any successful attempts have been made to induce these birds to pair and breed in confinement; but I have no doubt of its practicability by proper management. Some months ago I placed a young unfledged Cow-bird (the *Fringilla pecoris* of Turton), whose mother, like the Cuckoo of Europe, abandons her

eggs and progeny to the mercy and management of other smaller birds, in the same cage with a Red-bird, which fed and reared it with great tenderness. They both continue to inhabit the same cage, and I have hopes that the Red-bird will finish his pupil's education by teaching him his song.

I must here remark, for the information of foreigners, that the story told by Le Page du Pratz, in his History of Louisiana, and which has been so often repeated by other writers, that the Cardinal Grosbeak "collects together great hoards of maize and buck-wheat, often as much as a bushel, which it artfully covers with leaves and small twigs, leaving only a small hole for entrance into the magazine," is entirely fabulous.

This species is eight inches long, and eleven in extent; the whole upper parts are a dull dusky red, except the sides of the neck and head, which, as well as the whole lower parts, are bright vermilion; chin, front and lores black; the head is ornamented with a high, pointed crest, which it frequently erects in an almost perpendicular position; and can also flatten at pleasure, so as to be scarcely perceptible; the tail extends three inches beyond the wings, and is nearly even at the end; the bill is of a brilliant coralline color, very thick and powerful for breaking hard grain and seeds; the legs and feet a light clay color (not blood red as Buffon describes them); iris of the eye dark hazel. The female is less than the male, has the upper parts of a brownish olive or drab color, the tail, wings, and tip of the crest excepted, which are nearly as red as those of the male; the lores, front and chin are light ash; breast and lower parts a reddish drab; bill, legs and eyes as those of the male; the crest is shorter and less frequently raised.

One peculiarity in the female of this species is, that she often sings nearly as well as the male. I do not know whether it be owing to some little jealousy on this score or not, that the male, when both occupy the same cage, very often destroys the female.

SCARLET TANAGER.

TANAGRA RUBRA.

[Plate XI.—Figs. 3 and 4.]

Tanagra rubra, LINN. *Syst.* I, p. 314, 3.—*Cardinal de Canada*, BRISS. *Orn.* III, p. 48, pl. 2, fig. 5.—LATH. II, p. 217, No. 3.—*Scarlet Sparrow*, EDW. pl. 343.—*Canada Tanager*, and *Olive Tanager*, ARCT. Zool. p. 369, No. 237—238.—PEALE'S *Museum*, No. 6128.

THIS is one of the gaudy foreigners (and perhaps the most showy) that regularly visit us from the torrid regions of the south. He is drest in the richest scarlet, set off with the most jetty black, and comes, over extensive countries, to sojourn for a time among us. While we consider him entitled to all the rights of hospitality, we may be permitted to examine a little into his character, and endeavour to discover, whether he has any thing else to recommend him besides that of having a fine coat, and being a great traveller.

On or about the first of May this bird makes his appearance in Pennsylvania. He spreads over the United States, and is found even in Canada. He rarely approaches the habitations of man, unless perhaps to the orchard, where he sometimes builds; or to the cherry trees in search of fruit. The depth of the woods is his favorite abode. There, among the thick foliage of the tallest trees, his simple and almost monotonous notes *chip*, *churr*, repeated at short intervals, in a pensive tone, may be occasionally heard; which appear to proceed from a considerable distance tho the bird be immediately above you; a faculty bestowed on him by the beneficent Author of Nature, no doubt for his protection; to compensate in a degree for the danger to which his glowing color would often expose him. Besides this usual note, he has, at times, a more musi-

cal chant, something resembling in mellowness that of the Baltimore Oriole. His food consists of large, winged insects, such as wasps, hornets and humble bees, and also of fruit, particularly those of that species of *Vaccinium* usually called huckle-berries, which in their season form almost his whole fare. His nest is built about the middle of May, on the horizontal branch of a tree, sometimes an apple tree, and is but slightly put together; stalks of broken flax, and dry grass, so thinly wove together that the light is easily perceivable thro it, form the repository of his young. The eggs are three, of a dull blue, spotted with brown or purple. They rarely raise more than one brood in a season, and leave us for the south about the last week in August.

Among all the birds that inhabit our woods there is none that strike the eye of a stranger, or even a native, with so much brilliancy as this. Seen among the green leaves, with the light falling strongly on his plumage, he really appears beautiful. If he has little of melody in his notes to charm us, he has nothing in them to disgust. His manners are modest, easy, and inoffensive. He commits no depredations on the property of the husbandman; but rather benefits him by the daily destruction in spring of many noxious insects; and when winter approaches he is no plundering dependant; but seeks in a distant country for that sustenance which the severity of the season denies to his industry in this. He is a striking ornament to our rural scenery, and none of the meanest of our rural songsters. Such being the true traits of his character, we shall always with pleasure welcome this beautiful, inoffensive stranger, to our orchards, groves and forests.

The male of this species, when arrived at his full size and colors, is six inches and a half in length, and ten and a half broad. The whole plumage is of a most brilliant scarlet, except the wings and tail, which are of a deep black; the latter handsomely forked, sometimes minutely tipped with white, and the interior edges of the wing feathers nearly white; the bill is strong, considerably inflated

like those of his tribe, the edge of the upper mandible somewhat irregular, as if toothed, and the whole of a dirty gamboge or yellowish horn color; this however, like that of most other birds, varies according to the season. About the first of August he begins to moult; the young feathers coming out of a greenish yellow color, until he appears nearly all dappled with spots of scarlet and greenish yellow. In this state of plumage he leaves us. How long it is before he recovers his scarlet dress, or whether he continues of this greenish color all winter, I am unable to say. The iris of the eye is of a cream color, the legs and feet light blue. The female (now I believe for the first time figured) is green above and yellow below; the wings and tail brownish black, edged with green. The young birds, during their residence here the first season, continue nearly of the same color with the female. In this circumstance we again recognise the wise provision of the Deity, in thus clothing the female and the inexperienced young, in a garb so favourable for concealment among the foliage; as the weakness of the one, and the frequent visits of the other to her nest, would greatly endanger the safety of all. That the young males do not receive their red plumage until the early part of the succeeding spring, I think highly probable, from the circumstance of frequently finding their red feathers, at that season, intermixed with green ones, and the wings also broadly edged with green. These facts render it also probable that the old males regularly change their color, and have a summer and winter dress; but this, farther observations must determine.

There is in the Brazils a bird of the same genus with this, and very much resembling it, so much so as to have been frequently confounded with it by European writers. It is the *Tanagra Brazilia* of Turton; and tho so like, is yet a very distinct species from the present, as I have myself had the opportunity of ascertaining, by examining two very perfect specimens from Brazil, now in the possession of Mr. Peale, and comparing them with this. The prin-

cial differences are these. The plumage of the Brazilian is almost black at bottom, very deep scarlet at the surface, and of an orange tint between; ours is ash colored at bottom, white in the middle, and bright scarlet at top. The tail of ours is *forked*, that of the other cuneiform or *rounded*. The bill of our species is more inflated, and of a greenish yellow color—the other's is black above, and whitish below towards the base. The whole plumage of the southern species is of a coarser, stiffer quality, particularly on the head. The wings and tail, in both, are black.

In the account which Buffon gives of the Scarlet Tanager, and Cardinal Grosbeak, there appears to be very great confusion, and many mistakes; to explain which it is necessary to observe, that Mr. Edwards in his figure of the Scarlet Tanager, or Scarlet Sparrow as he calls it, has given it a hanging crest, owing no doubt to the loose disordered state of the plumage of the stuffed or dried skin from which he made his drawing. Buffon has afterwards confounded the two together by applying many stories originally related of the Cardinal Grosbeak, to the Scarlet Tanager; and the following he gravely gives as his reason for so doing. “We may “presume,” says he, “that when travellers talk of the warble of the “Cardinal they mean the Scarlet Cardinal, for the other Cardinal is “of the genus of the Grosbeaks, consequently a silent bird.”* This *silent* bird, however, has been declared by an eminent English naturalist, to be almost equal to their own Nightingale! The Count also quotes the following passage from Charlevoix to prove the same point, which if his translator has done him justice, evidently proves the reverse. “It is scarcely more than a hundred leagues,” says this traveller “*south* of Canada, that the Cardinal begins to “be seen. Their song is sweet, their plumage beautiful, and their “head wears a crest.” But the Scarlet Tanager is found even in Canada, as well as an hundred leagues to the south while the Car-

* Buffon, vol. IV, p. 209.

dinal Grosbeak is not found in any great numbers north of Maryland. The latter therefore, it is highly probable, was the bird meant by Charlevoix, and not the Scarlet Tanager. Buffon also quotes an extract of a letter from Cuba, which, if the circumstance it relates be true, is a singular proof of the estimation in which the Spaniards hold the Cardinal Grosbeak. "On Wednesday arrived
" at the port of Havanna a bark from Florida, loaded with Cardi-
" nal birds, skins and fruit. The Spaniards bought the Cardinal
" birds at so high a price as ten dollars a piece; and notwithstand-
" ing the public distress spent on them the sum of 18,000 dol-
" lars!"*

With a few facts more I shall conclude the history of the Scarlet Tanager. When you approach the nest, the male keeps cautiously at a distance, as if fearful of being seen; while the female hovers around in the greatest agitation and distress. When the young leave the nest the male parent takes a most active part in feeding and attending them, and is then altogether indifferent of concealment.

Passing thro an orchard one morning I caught one of these young birds that had but lately left the nest. I carried it with me about half a mile, to shew it to my friend Mr. William Bartram; and having procured a cage, hung it up on one of the large pine trees in the botanic garden, within a few feet of the nest of an *Orchard Oriole*, which also contained young; hopeful that the charity, or tenderness of the Orioles, would induce them to supply the cravings of the stranger. But charity with them, as with too many of the human race, began and ended *at home*. The poor orphan was altogether neglected, notwithstanding its plaintive cries; and, as it refused to be fed by me, I was about to return it back to the place where I found it; when, towards the afternoon, a Scarlet Tanager, no doubt its own parent, was seen fluttering round the

* Gmelli Careri.

cage, endeavouring to get in. Finding this impracticable he flew off, and soon returned with food in his bill; and continued to feed it till after sunset, taking up his lodgings on the higher branches of the same tree. In the morning, almost as soon as day broke, he was again seen most actively engaged in the same affectionate manner; and, notwithstanding the insolence of the Orioles, continued his benevolent offices the whole day, roosting at night as before. On the third or fourth day, he appeared extremely solicitous for the liberation of his charge, using every expression of distressful anxiety, and every call and invitation that nature had put in his power for him to come out. This was too much for the feelings of my venerable friend; he procured a ladder, and mounting to the spot where the bird was suspended, opened the cage, took out the prisoner, and restored him to liberty and to his parent, who with notes of great exultation accompanied his flight to the woods. The happiness of my good friend was scarcely less complete, and shewed itself in his benevolent countenance; and I could not refrain saying to myself—If such sweet sensations can be derived from a simple circumstance of this kind, how exquisite, how unspeakably rapturous must the delight of those individuals have been, who have rescued their fellow beings from death, chains and imprisonment, and restored them to the arms of their friends and relations! Surely in such godlike actions virtue is its own most abundant reward.

RICE BUNTING.

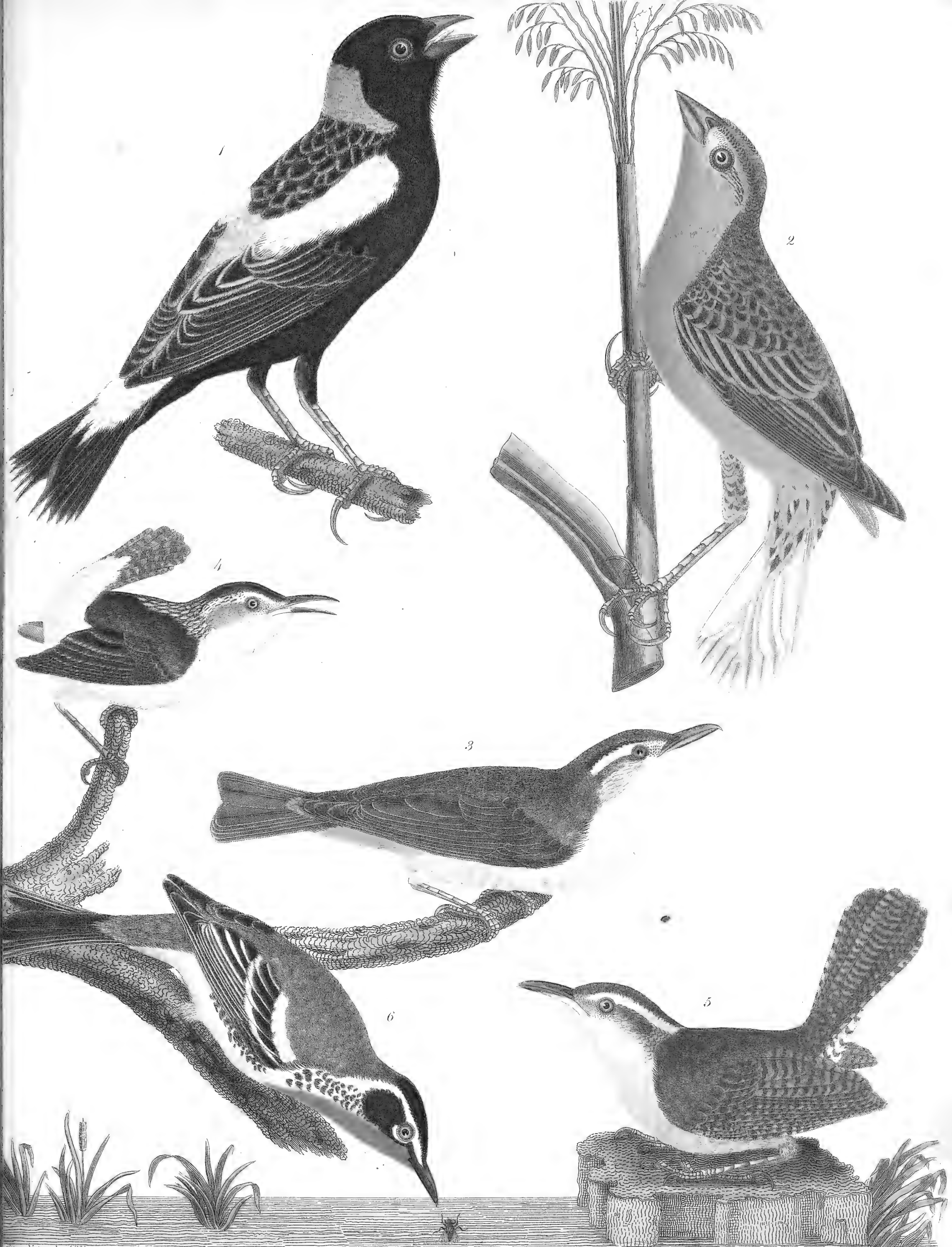
EMBERIZA ORYZIVORA.

[Plate XII.—Figs. 1 and 2.]

Emberiza oryzivora, LINN. *Syst.* p. 311, 16.—*Le Ortolan de la Caroline*, BRISS. *Orn.* III, p. 282, 8, pl. 15, fig. 3. *Pl. enl.* 388, fig. 1.—*L'Agripenne, ou L'Ortolan de Riz.* BUFF. *Ois.* IV, p. 337.—*Rice-bird*, CATESB. *Car.* I, pl. 14.—EDW. pl. 2.—LATHAM II, p. 188, No. 25.—PEALE'S *Museum*, No. 6026.

THIS is the *Boblink* of the eastern and northern states, and the *Rice* and *Reed-bird* of Pennsylvania and the southern states. Tho small in size, he is not so in consequence; his coming is hailed by the sportsman with pleasure; while the careful planter looks upon him as a devouring scourge, and worse than a plague of locusts. Three good qualities, however, entitle him to our notice, particularly as these three are rarely found in the same individual;—his plumage is beautiful, his song highly musical, and his flesh excellent. I might also add, that the immense range of his migrations, and the havock he commits are not the least interesting parts of his history.

The winter residence of this species I suppose to be from Mexico to the mouth of the Amazon, from whence in hosts innumerable he regularly issues every spring, perhaps to both hemispheres, extending his migrations northerly as far as the banks of the Illinois and the shores of the St. Lawrence. Could the fact be ascertained, which has been asserted by some writers, that the emigration of these birds was altogether unknown in this part of the continent, previous to the introduction of rice plantations, it would certainly be interesting. Yet, why should these migrations reach at least a thousand miles beyond those places where rice is



from Nature by A. Wilson.

Engraved by J. L. Auden.

1, Rice Bunting. 2, Female. 3, Red-eyed Flycatcher. 4, Marsh Wren. 5, Great Carolina Wren. 6, Yellow-throat Warbler.

now planted; and this not in occasional excursions, but regularly to breed, and rear their young, where rice never was, and probably never will be cultivated? Their so recent arrival on this part of the continent I believe to be altogether imaginary, because, tho there were not a single grain of rice cultivated within the United States, the country produces an exuberance of food of which they are no less fond. Insects of various kinds, grubs, May-flies and caterpillars, the young ears of Indian corn, and the seeds of the wild oats, or, as it is called in Pennsylvania, reeds, (the *zizania aquatica* of Linnæus) which grows in prodigious abundance along the marshy shores of our large rivers, furnish, not only them, but millions of Rail, with a delicious subsistence for several weeks. I do not doubt, however, that the introduction of rice, but more particularly the progress of agriculture in this part of America, has greatly increased their numbers, by multiplying their sources of subsistence fifty fold within the same extent of country.

In the month of April, or very early in May, the Rice Bunting, male and female, in the dresses in which they are figured on the plate, arrive within the southern boundaries of the United States; and are seen around the town of Savannah, in Georgia, about the fourth of May, sometimes in separate parties of males and females; but more generally promiscuously. They remain there but a short time; and about the twelfth of May make their appearance in the lower parts of Pennsylvania, as they did at Savannah. While here the males are extremely gay and full of song; frequenting meadows, newly ploughed fields, sides of creeks, rivers, and watery places, feeding on May-flies and caterpillars, of which they destroy great quantities. In their passage, however, thro Virginia at this season, they do great damage to the early wheat and barley, while in its milky state. About the twentieth of May they disappear on their way to the north. Nearly at the same time they arrive in the state of New York, spread over the whole New England states as far as the river St. Lawrence from lake Ontario

to the sea; in all of which places north of Pennsylvania they remain during the summer, building, and rearing their young. The nest is fixed on the ground, generally in a field of grass; the outside is composed of dry leaves and coarse grass, the inside is lined with fine stalks of the same, laid in considerable quantity. The female lays five eggs, of a bluish white, marked with numerous irregular spots of blackish brown. The song of the male, while the female is sitting, is singular, and very agreeable. Mounting and hovering on wing, at a small height above the field, he chants out such a jingling medley of short variable notes, uttered with such seeming confusion and rapidity, and continued for a considerable time, that it appears as if half a dozen birds of different kinds were all singing together. Some idea may be formed of this song by striking the high keys of a piano forte at random, singly, and quickly, making as many sudden contrasts of high and low notes as possible. Many of the tones are, in themselves, charming; but they succeed each other so rapidly that the ear can hardly separate them. Nevertheless the general effect is good; and when ten or twelve are all singing on the same tree, the concert is singularly pleasing. I kept one of these birds for a long time, to observe its change of color. During the whole of April, May, and June, it sang almost continually. In the month of June the color of the male begins to change, gradually assimilating to that of the female, and before the beginning of August it is difficult to distinguish the one from the other, both being then in the dress of fig. 2. At this time, also, the young birds are so much like the female, or rather like both parents, and the males so different in appearance from what they were in spring, that thousands of people in Pennsylvania, to this day, persist in believing them to be a different species altogether. While others allow them indeed to be the same, but confidently assert that they are all females—none but females, according to them, returning in the Fall; what becomes of the males they are totally at a loss to conceive. Even Mr. Mark Catesby, who

resided for years in the country they inhabit, and who, as he himself informs us, examined by dissection great numbers of them in the Fall, and repeated his experiment the succeeding year, lest he should have been mistaken, declares that he uniformly found them to be females. These assertions must appear odd to the inhabitants of the eastern states, to whom the change of plumage in these birds is familiar, as it passes immediately under their eye; and also to those, who like myself have kept them in cages, and witnessed their gradual change of color. That accurate observer, Mr. William Bartram, appears, from the following extract, to have taken notice of, or at least suspected this change of color in these birds more than forty years ago. "Being in Charleston," says he, "in the month of June, I observed a cage full of Rice-birds, that is of the yellow or female color, who were very merry and vociferous, having the same variable music with the pied or male bird, which I thought extraordinary, and observing it to the gentleman, he assured me that they were all of the male kind, taken the preceding spring; but had changed their color, and would be next spring of the color of the pied, thus changing color with the seasons of the year. If this is really the case, it appears they are both of the same species intermixed, Spring and Fall." Without, however, implicating the veracity of Catesby, who, I have no doubt, believed as he wrote, a few words will easily explain why he was deceived. The internal organization of undomesticated birds, of all kinds, undergoes a remarkable change, every spring and summer; and those who wish to ascertain this point by dissection will do well to remember, that in this bird those parts that characterize the male are, in autumn, no larger than the smallest pin's head, and in young birds of the first year can scarcely be discovered; tho in spring their magnitude in each is at least one hundred times greater. To an unacquaintance with this extraordinary circumstance I am persuaded has been owing the mistake of Mr. Catesby that the females only return in the Fall; for the same

opinion I long entertained myself, till a more particular examination shewed me the source of my mistake. Since that, I have opened and examined many hundreds of these birds, in the months of September and October, and, on the whole, have found about as many males as females among them. The latter may be distinguished from the former by being of a rather more shining yellow on the breast and belly; it is the same with the young birds of the first season.

During the breeding season they are dispersed over the country; but as soon as the young are able to fly, they collect together in great multitudes, and pour down on the oat fields of New England like a torrent, depriving the proprietors of a good tythe of their harvest; but in return often supply his table with a very delicious dish. From all parts of the north and western regions they direct their course towards the south; and about the middle of August revisit Pennsylvania on their rout to winter quarters. For several days they seem to confine themselves to the fields and uplands; but as soon as the seeds of the reed are ripe they resort to the shores of the Delaware and Schuylkill in multitudes; and these places, during the remainder of their stay, appear to be their grand rendezvous. The reeds, or wild oats, furnish them with such abundance of nutritious food, that in a short time they become extremely fat; and are supposed, by some of our epicures, to be equal to the famous Ortolans of Europe. Their note at this season is a single *chink*, and is heard over head, with little intermission, from morning to night. These are halcyon days for our gunners of all descriptions, and many a lame and rusty gun barrel is put in requisition for the sport. The report of musketry along the reedy shores of the Schuylkill and Delaware is almost incessant, resembling a running fire. The markets of Philadelphia, at this season, exhibit proofs of the prodigious havock made among these birds; for almost every stall is ornamented with strings of Reed-birds. This sport, however, is considered inferior to that of *Rail-shooting*,

which is carried on at the same season and places with equal slaughter. Of this, as well as of the Rail itself, we shall give a particular account in its proper place.

Whatever apology the people of the eastern and southern states may have for the devastation they spread among the Rice and Reed-birds, the Pennsylvanians, at least those living in this part of it, have little to plead in justification, but the pleasure of destruction, or the savoury dish they furnish their tables with; for the oat harvest is generally secured before the great body of these birds arrive, the Indian corn too ripe and hard, and the reeds seem to engross all their attention. But in the states south of Maryland, the harvest of early wheat and barley in spring, and the numerous plantations of rice in Fall, suffer severely. Early in October, or as soon as the nights begin to set in cold, they disappear from Pennsylvania, directing their course to the south. At this time they swarm among the rice fields; and appear in the island of Cuba in immense numbers, in search of the same delicious grain. About the middle of October they visit the island of Jamaica in equal numbers, where they are called *Butter-birds*. They feed on the seed of the Guinea grass, and are also in high esteem there for the table.*

Thus it appears, that the regions north of the fortieth degree of latitude are the breeding places of these birds; that their migrations northerly are performed from March to May, and their return southerly from August to November; their precise winter quarters, or farthest retreat southerly, is not exactly known.

The Rice Bunting is seven inches and a half long, and eleven and a half in extent; his spring dress is as follows; upper part of the head, wings, tail and sides of the neck, and whole lower parts black; the feathers frequently skirted with brownish yellow as he passes into the colors of the female; back of the head a cream

* Rennel's Hist. Jam.

color; back black seamed with brownish yellow; scapulars pure white, rump and tail coverts the same; lower part of the back bluish white; tail formed like those of the Woodpecker genus, and often used in the same manner, being thrown in to support it while ascending the stalks of the reed; this habit of throwing in the tail it retains even in the cage; legs a brownish flesh color; hind heel very long; bill a bluish horn color; eye hazel; see fig. 1. In the month of June this plumage gradually changes to a brownish yellow, like that of the female, fig. 2, which has the back streaked with brownish black; whole lower parts dull yellow; bill reddish flesh color; legs and eyes as in the male. The young birds retain the dress of the female until the early part of the succeeding spring; the plumage of the female undergoes no material change of color.

RED-EYED FLYCATCHER.

SYLVIA OLIVACEA.

[Plate XII.—Fig. 2.]

LINN. *Syst.* I, p. 327, 14.—*Gobe-mouche de la Caroline et de la Jamaïque*, BUFF. IV, p. 539.
 EDW. t. 253.—CATESB. t. 54.—LATH. *Syn.* III, p. 351, No. 52.—*Muscicapa sylvicola*,
 BARTRAM, p. 290.—PEALE'S *Museum*, No. 6675.

THIS is a numerous species, tho confined chiefly to the woods and forests, and, like all the rest of its tribe that visit Pennsylvania, is a bird of passage. It arrives here late in April; has a loud, lively and energetic song, which it continues, as it hunts among the thick foliage, sometimes for an hour with little intermission. In the months of May, June, and to the middle of July, it is the most distinguishable of all the other warblers of the forest; and even in August, long after the rest have almost all become mute, the notes of the Red-eyed Flycatcher are frequently heard with unabated spirit. These notes are in short, emphatical bars, of two, three, or four syllables. In Jamaica, where this bird winters, and is probably also resident, it is called, as Sloan informs us, "Whip-Tom-Kelly," from an imagined resemblance of its notes to these words. And indeed, on attentively listening for some time to this bird in his full ardor of song, it requires but little of imagination to fancy that you hear it pronounce these words, "Tom Kelly! Whip Tom Kelly!" very distinctly. It inhabits from Georgia to the river St. Lawrence, leaving Pennsylvania about the middle of September.

This bird builds in the month of May a small neat pensile nest, generally suspended between two twigs of a young dogwood or other small sapling. It is hung by the two upper edges, seldom at a greater height than four or five feet from the ground. It is

formed of pieces of hornets' nests, some flax, fragments of withered leaves, slips of vine bark, bits of paper, all glued together with the saliva of the bird, and the silk of caterpillars, so as to be very compact; the inside is lined with fine slips of grape vine bark, fibrous grass, and sometimes hair. These nests are so durable that I have often known them to resist the action of the weather for a year; and in one instance I found the nest of the Yellow-bird built in the cavity of one of these of the preceding year. The mice very often take possession of them after they are abandoned by the owners. The eggs are four, sometimes five, pure white, except near the great end, where they are marked with a few small dots of dark brown or reddish. They generally raise two brood in the season.

The Red-eyed Flycatcher is one of the adopted nurses of the Cow-bird, and a very favorite one, shewing all the symptoms of affection for the foundling, and as much solicitude for its safety, as if it were its own. The figure of that singular bird, accompanied by a particular account of its history, is given in Plate XVIII of the present volume.

Before I take leave of this bird, it may not be amiss to observe that there is another, and a rather less species of Flycatcher, somewhat resembling the Red-eyed, which is frequently found in its company. Its eyes are hazel, its back more cinereous than the other, and it has a single light streak over the eye. The notes of this bird are low, somewhat plaintive, but warbled out with great sweetness; and form a striking contrast with those of the Red-eyed Flycatcher. I think it probable that Dr. Barton had reference to this bird when he made the following remarks. See his "Fragments of the Natural History of Pennsylvania," page 19. "*Muscicapa olivacea*.—I do not think with Mr. Pennant that this is the same bird as the Whip-Tom-Kelly of the West Indies. Our bird has no such note; but a great variety of soft, tender and agreeable notes. It inhabits forests; and does not like the West India bird build a pendulous nest." Had the learned Professor, how-

ever, examined into this matter with his usual accuracy, he would have found, that the *Muscicapa olivacea*, and the soft and tender songster he mentions, are two very distinct species; and that both the one and the other actually build very curious pendulous nests.

This species is five inches and a half long, and seven inches in extent; crown ash, slightly tinged with olive, bordered on each side with a line of black, below which is a line of white passing from the nostril over and a little beyond the eye; the bill is longer than usual with birds of its tribe, the upper mandible overhanging the lower considerably and notched, dusky above, and light blue below; all the rest of the plumage above is of a yellow olive, relieved on the tail and at the tips of the wings with brown; chin, throat, breast and belly pure white; inside of the wings and vent feathers greenish yellow; the tail is very slightly forked; legs and feet light blue; iris of the eye red. The female is marked nearly in the same manner, and is distinguishable only by the greater obscurity of the colours.

MARSH WREN.

CERTHIA PALUSTRIS.

[Plate XII.—Fig. 4.]

LATH. *Syn. Suppl.* p. 244.—*Motacilla palustris* (*regulus minor*), BARTRAM, p. 291.—
PEALE'S *Museum*, No. 7282.

THIS obscure but spirited little species has been almost overlooked by the naturalists of Europe, as well as by those of its own country. The singular attitude in which it is represented will be recognized by those acquainted with its manners, as one of its most common and favorite ones, while skipping thro among the reeds and rushes. The Marsh Wren arrives in Pennsylvania about the middle of May, or as soon as the reeds and a species of nymphaea, usually called splatter-docks, which grow in great luxuriance along the tide water of our rivers, are sufficiently high to shelter it. To such places it almost wholly limits its excursions, seldom venturing far from the river. Its food consists of flying insects, and their larvæ, and a species of green grasshoppers that inhabit the reeds. As to its notes it would be mere burlesque to call them by the name of song. Standing on the reedy borders of the Schuylkill or Delaware, in the month of June, you hear a low crackling sound, something similar to that produced by air bubbles forcing their way thro mud or boggy ground when trod upon; this is the *song* of the Marsh Wren. But as among the human race it is not given to one man to excel in every thing, and yet each, perhaps, has something peculiarly his own; so among birds we find a like distribution of talents and peculiarities. The little bird now before us, if deficient and contemptible in singing, excels in the art of *design*, and constructs a nest, which, in durability, warmth and

convenience, is scarcely inferior to one, and far superior to many, of its more musical brethren. This is formed outwardly of wet rushes mixed with mud, well intertwined, and fashioned into the form of a cocoa nut. A small hole is left two-thirds up, for entrance, the upper edge of which projects like a pent house over the lower, to prevent the admission of rain. The inside is lined with fine soft grass, and sometimes feathers; and the outside, when hardened by the sun, resists every kind of weather. This nest is generally suspended among the reeds, above the reach of the highest tides, and is tied so fast in every part to the surrounding reeds, as to bid defiance to the winds and the waves. The eggs are usually six, of a dark fawn color, and very small. The young leave the nest about the twentieth of June, and they generally have a second brood in the same season.

The size, general color, and habit of this bird of erecting its tail, gives it, to a superficial observer, something of the appearance of the common House Wren, represented in Plate VIII of this work; and still more that of the Winter Wren, figured in the same plate; but with the former of these it never associates; and the latter has left us some time before the Marsh Wren makes his appearance. About the middle of August they begin to go off, and on the first of September very few of them are to be seen. How far north the migrations of this species extend I am unable to say; none of them to my knowledge winter in Georgia, or any of the southern states.

The Marsh Wren is five inches long, and six in extent; the whole upper parts are dark brown, except the upper part of the head, back of the neck, and middle of the back, which are black, the two last streaked with white; the tail is short, rounded, and barred with black; wings slightly barred; a broad strip of white passes over the eye half way down the neck; the sides of the neck are also mottled with touches of a light clay color on a whitish ground; whole under parts pure silvery white, except the vent,

which is tinged with brown; the legs are light brown; the hind claw large, semicircular, and very sharp; bill slender, slightly bent; nostrils prominent; tongue narrow, very tapering, sharp pointed, and horny at the extremity; eye hazel. The female almost exactly resembles the male in plumage.

From the above description, and a view of the figure, the naturalist will perceive that this species is truly a *Certhia* or Creeper; and indeed its habits confirm this, as it is continually climbing along the stalks of reeds and other aquatic plants, in search of insects.

GREAT CAROLINA WREN.

CERTHIA CAROLINIANA.

[Plate XII.—Fig. 5.]

Le Roitelet de la Louisiana, Pl. enl. 730, fig. 1.—LATH. *Syn.* VII, p. 507, var. B.—*Le Trog-lodytes de la Louisiana, BUFF. Ois. V, p. 361.*—*Motacilla Caroliniana (regulus magnus), BARTRAM, p. 291.*—PEALE'S *Museum, No. 7248.*

THIS is another of those equivocal species that so often occur to puzzle the naturalist. The general appearance of this bird is such, that the most illiterate would at first sight call it a *Wren*; but the common Wren of Europe, and the Winter Wren of the United States, are both warblers, judging them according to the simple principle of Linnæus. The present species, however, and the preceding (the Marsh Wren), tho possessing great family likeness to those above mentioned, are decisively *Creepers*, if the bill, the tongue, nostrils and claws are to be the criteria by which we are to class them.

The color of the plumage of birds is but an uncertain and inconstant guide; and tho in some cases it serves to furnish a trivial or specific appellation, yet can never lead us to the generic one. I have, therefore, notwithstanding the general appearance of these birds, and the practice of former ornithologists, removed them to the genus *Certhia*, from that of *Motacilla*, where they have hitherto been placed.

This bird is frequently seen, early in May, along the shores of the Delaware, and other streams that fall into it on both sides, thirty or forty miles below Philadelphia; but is rather rare in Pennsylvania. This circumstance is a little extraordinary; since, from its size, and stout make, it would seem more capable of braving the

rigors of a northern climate than any of the others. It can, however, scarcely be called migratory. In the depth of winter I found it numerous in Virginia along the shores and banks of the James river and its tributary streams, and thence as far south as Savannah. I also observed it on the banks of the Ogechee; it seemed to be particularly attached to the borders of Cypress swamps, deep hollows among piles of old decaying timber, and by rivers and small creeks. It has all the restless jerking manners of the Wrens, skipping about with great nimbleness, hopping into caves, and disappearing into holes and crevices like a rat, for several minutes, and then reappearing in another quarter. It occasionally utters a loud, strong, and singular twitter, resembling the word *chirr-rup*, dwelling long and strongly on the first syllable; and so loud that I at first mistook it for the Red-bird, *L. cardinalis*. It has also another chant, rather more musical, like "*Sweet William, Sweet William,*" much softer than the former. Tho I cannot positively say, from my own observations, that it builds in Pennsylvania, and have never yet been so fortunate as to find its nest; yet, from the circumstance of having several times observed it within a quarter of a mile of the Schuylkill, in the month of August, I have no doubt that some few breed here, and think it highly probable that Pennsylvania and New York may be the northern boundaries of their visits, having sought for it in vain among the states of New England. Its food appears to consist of those insects and their larvæ that frequent low damp caves, piles of dead timber, old roots, projecting banks of creeks, &c. &c. It certainly possesses the faculty of seeing in the dark better than day birds usually do; for I have observed it exploring the recesses of caves, where a good acute eye must have been necessary to enable it to distinguish its prey.

In the southern states, as well as in Louisiana, this species is generally *resident*; tho in summer they are more numerous, and are found rather farther north than in winter. In this last season their chirruping is frequently heard in gardens soon after day-

break, and along the borders of the great rivers of the southern states, not far from the sea coast.

The Great Wren of Carolina is five inches and a quarter long, and seven broad; the whole upper parts are reddish brown, the wings and tail being barred with black; a streak of yellowish white runs from the nostril over the eye, down the side of the neck, nearly to the back; below that a streak of reddish brown extends from the posterior part of the eye to the shoulder; the chin is yellowish white; the breast, sides and belly a light rust color, or reddish buff; vent feathers white, neatly barred with black; in the female plain; wing coverts minutely tipped with white; legs and feet flesh colored, and very strong; bill three quarters of an inch long, strong, a little bent, grooved and pointed, the upper mandible bluish black, lower light blue; nostrils oval, partly covered with a prominent convex membrane; tongue pointed and slender; eyes hazel; tail cuneiform, the two exterior feathers on each side three quarters of an inch shorter, whitish on their exterior edges, and touched with deeper black; the same may be said of the three outer primaries. The female wants the white on the wing coverts; but differs little in color from the male.

In this species I have observed a circumstance common to the House and Winter Wren, but which is not found in the Marsh Wren; the feathers of the lower part of the back, when parted by the hand, or breath, appear spotted with white, being at bottom deep ash, reddish brown at the surface, and each feather with a spot of white between these two colors. This, however, cannot be perceived without parting the feathers.

YELLOW-THROAT WARBLER.

SYLVIA FLAVICOLLIS.

[Plate XII.—Fig. 6.]

Yellow-throat Warbler, *Arct. Zool.* p. 400, No. 286.—CATESB. I, 62.—LATH. II, 437.—
La Mesange grise a gorge jaune, BUFF. V, 454.—*La gorge jaune de St. Domingue*, *Pl. enl.* 686, fig. 1.

THE habits of this beautiful species, like those of the preceding, are not consistent with the shape and construction of its bill; the former would rank it with the Titmouse, or with the Creepers, the latter is decisively that of the Warbler. The first opportunity I had of examining a living specimen of this bird was in the southern parts of Georgia, in the month of February. Its notes which were pretty loud and spirited, very much resembled those of the Indigo-bird. It continued a considerable time on the same pine tree, creeping around the branches and among the twigs, in the manner of the Titmouse, uttering its song every three or four minutes. On flying to another tree it frequently alighted on the body, and ran nimbly up or down, spirally and perpendicularly, in search of insects. I had afterwards many opportunities of seeing others of the same species, and found them all to correspond in these particulars. This was about the 24th of February, and the first of their appearance there that spring, for they leave the United States about three months during winter, and consequently go to no great distance. I had been previously informed that they also pass the summer in Virginia and in the southern parts of Maryland; but they very rarely, proceed as far north as Pennsylvania.

This species is five inches and a half in length, and eight and a half broad; the whole back, hind head and rump is a fine light

slate color; the tail is somewhat forked, black, and edged with light slate; the wings are also black, the three shortest secondaries broadly edged with light blue; all the wing quills are slightly edged with the same; the first row of wing coverts are tipped and edged with white, the second wholly white, or nearly so; the frontlet, ear feathers, lores and above the temple, are black; the line between the eye and nostril, whole throat and middle of the breast brilliant golden yellow; the lower eye-lid, line over the eye, and spot behind the ear feathers, as well as the whole lower parts, are pure white; the yellow on the throat is bordered with touches of black, which also extend along the sides under the wings; the bill is black, and faithfully represented in the figure; the legs and feet yellowish brown; the claws extremely fine pointed; the tongue rather cartilaginous, and lacerated at the end. The female has the wings of a dingy brown, and the whole colors, particularly the yellow on the throat, much duller; the young birds of the first season are without the yellow.

TYRANT FLYCATCHER, OR KING-BIRD.

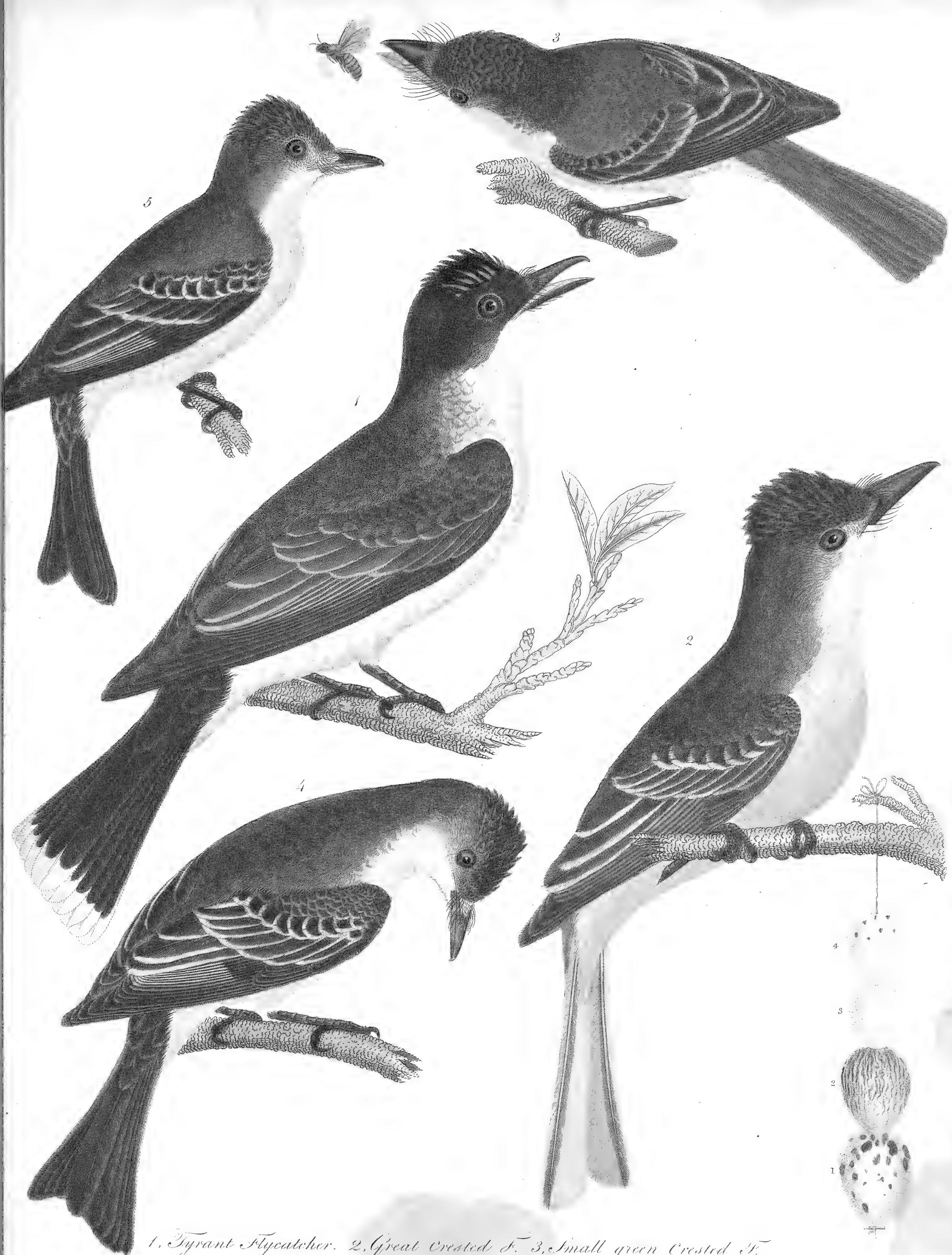
LANIUS TYRANNUS.

[Plate XIII.—Fig. 1.]

Lanius Tyrannus, LINN. *Syst.* 136.—LATH. *Syn.* I, 186.—CATESB. I, 55.—*Le Tyran de la Caroline*, BUFF. IV, 577. *Pl. enl.* 676.—*Arct. Zool.* p. 384, No. 263.—PEALE'S *Museum*, No. 578.

THIS is the *Field Martin* of Maryland and some of the southern states, and the *King-bird* of Pennsylvania and several of the northern districts. The epithet *Tyrant*, which is generally applied to him by naturalists, I am not altogether so well satisfied with; some, however, may think the two terms pretty nearly synonymous.

The trivial name King as well as Tyrant has been bestowed on this bird for its extraordinary behaviour, and the authority it assumes over all others, during the time of breeding. At that season his extreme affection for his mate, and for his nest and young, makes him suspicious of every bird that happens to pass near his residence, so that he attacks without discrimination every intruder. In the months of May, June, and part of July, his life is one continued scene of broils and battles; in which, however, he generally comes off conqueror. Hawks and Crows, the Bald Eagle, and the great Black Eagle, all equally dread a rencontre with this dauntless little champion, who, as soon as he perceives one of these last approaching, launches into the air to meet him, mounts to a considerable height above him, and darts down on his back, sometimes fixing there to the great annoyance of his sovereign, who, if no convenient retreat or resting place be near, endeavours by various evolutions to rid himself of his merciless adversary. But the



1. Tyrant Flycatcher. 2. Great Crested F. 3. Small green Crested F.
4. Pewee F. 5. Wood Pewee F.

from Nature by A. Wilson.

Engraved by L. S.

King-bird is not so easily dismounted.—He teases the Eagle incessantly, sweeps upon him from right and left, remounts, that he may descend on his back with the greater violence; all the while keeping up a shrill and rapid twittering; and continuing the attack sometimes for more than a mile, till he is relieved by some other of his tribe equally eager for the contest.

There is one bird, however, which by its superior rapidity of flight, is sometimes more than a match for him; and I have several times witnessed his precipitate retreat before this active antagonist. This is the *Purple Martin*, one whose food and disposition is pretty similar to his own; but who has greatly the advantage of him on wing, in eluding all his attacks, and teasing him as he pleases. I have also seen the Red-headed Woodpecker, while clinging on a rail of the fence, amuse himself with the violence of the King-bird, and play *bo-peep* with him round the rail, while the latter, highly irritated, made every attempt as he swept from side to side to strike him, but in vain. All this turbulence, however, vanishes as soon as his young are able to shift for themselves; and he is then as mild and peaceable as any other bird.

But he has a worse habit than all these; one much more obnoxious to the husbandman, and often fatal to himself. He loves, not the honey, but the *bees*; and, it must be confessed, is frequently on the look-out for these little industrious insects. He plants himself on a post of the fence, or on a small tree in the garden, not far from the hives, and from thence sallies on them as they pass and repass, making great havock among their numbers. His shrill twitter, so near to the house, gives intimation to the farmer of what is going on, and the gun soon closes his career for ever. Man arrogates to himself, in this case, the exclusive privilege of murder; and after putting thousands of these same little insects to death, seizes on the fruits of their labour.

The King-birds arrive in Pennsylvania about the twentieth of April, sometimes in small bodies of five and six together, and are

at first very silent, until they begin to pair, and build their nest. This generally takes place about the first week in May. The nest is very often built in the orchard, on the horizontal branch of an apple tree; frequently also, as Catesby observes, on a sassafras tree, at no great height from the ground. The outside consists of small slender twigs, tops of withered flowers of the plant yarrow, and others, well wove together with tow and wool; and is made large, and remarkably firm and compact. It is usually lined with fine dry fibrous grass, and horse hair. The eggs are five, of a very pale cream color, or dull white, marked with a few large spots of deep purple, and other smaller ones of light brown, chiefly, tho not altogether, towards the great end (see fig. 1.). They generally build twice in the season.

The King-bird is altogether destitute of song, having only the shrill twitter above mentioned. His usual mode of flight is singular. The vibrations of his broad wings, as he moves slowly over the fields, resemble those of a Hawk hovering and settling in the air to reconnoitre the ground below; and the object of the King-bird is no doubt something similar, *viz.* to look out for passing insects, either in the air, or among the flowers and blossoms below him. In fields of pasture he often takes his stand, on the tops of the mullein, and other rank weeds, near the cattle, and makes occasional sweeps after passing insects, particularly the large black gad-fly, so terrifying to horses and cattle. His eye moves restlessly around him, traces the flight of an insect for a moment or two, then that of a second, and even a third, until he perceives one to his liking, when with a shrill sweep he pursues, seizes it, and returns to the same spot again, to look out for more. This habit is so conspicuous when he is watching the bee-hive, that several intelligent farmers of my acquaintance are of opinion that he picks out only the *drones*, and never injures the working bees. Be this as it may, he certainly gives a preference to one bee, and one species of insect, over another. He hovers over the river, sometimes

for a considerable time, darting after insects that frequent such places, snatching them from the surface of the water, and diving about in the air like a Swallow; for he possesses at will great powers of wing. Numbers of them are frequently seen thus engaged, for hours together, over the rivers Delaware and Schuylkill, in a calm day, particularly towards evening. He bathes himself by diving repeatedly into the water from the overhanging branches of some tree; where he sits to dry and dress his plumage.

Whatever antipathy may prevail against him for depredations on the drones, or if you will, on the bees, I can assure the cultivator, that this bird is greatly his friend, in destroying multitudes of insects whose larvæ prey on the harvests of his fields, particularly his corn, fruit trees, cucumbers, and pumpkins. These noxious insects are the daily food of this bird; and he destroys, upon a very moderate average, some hundreds of them daily. The death of every King-bird is therefore an actual loss to the farmer, by multiplying the numbers of destructive insects; and encouraging the depredations of Crows, Hawks, and Eagles, who avoid as much as possible his immediate vicinity. For myself, I must say, that the King-bird possesses no common share of my regard. I honor this little bird for his extreme affection for his young; for his contempt of danger, and unexampled intrepidity; for his meekness of behaviour when there are no calls on his courage, a quality which even in the human race is justly considered so noble;

“ In peace there’s nothing so becomes a man

“ As modest stillness and humility;

“ But when the blast of war,” &c. &c.

but above all, I honor and esteem this bird for the millions of ruinous vermin which he rids us of; whose depredations, in *one* season, but for the services of this and other friendly birds, would far overbalance all the produce of the bee-hives in fifty.

As a friend to this persecuted bird, and an enemy to prejudices of every description, will the reader allow me to set this matter in a somewhat clearer and stronger light, by presenting him with a short poetical epitome of the King-bird's history?

FAR in the south, where vast *Maragnon* flows,
And boundless forests unknown wilds enclose;
Vine-tangled shores, and suffocating woods,
Parch'd up with heat, or drown'd with pouring floods;
Where each extreme alternately prevails,
And Nature sad their ravages bewails;
Lo! high in air, above those trackless wastes,
With Spring's return the King-bird hither hastes;
Coasts the fam'd Gulf,* and from his height explores,
Its thousand streams, its long indented shores,
Its plains immense, wide op'ning on the day,
Its lakes and isles where feather'd millions play;
All tempt not him; till, gazing from on high,
COLUMBIA's regions wide below him lie;
There end his wand'rings and his wish to roam,
There lie his native woods, his fields, his *home*;
Down, circling, he descends, from azure heights,
And on a full-blown sassafras alights.

Fatigued and silent, for a while he views
His old frequented haunts, and shades recluse,
Sees brothers, comrades, every hour arrive—
Hears, humming round, the tenants of the hive;
Love fires his breast, he wooes; and soon is blest;
And in the blooming orchard builds his nest.

Come now ye cowards! ye whom heav'n disdains,
Who boast the happiest home—the richest plains;

* Of Mexico.

On whom, perchance, a wife, an infant's eye
Hang as their hope, and on your arm rely;
Yet, when the hour of danger and dismay
Comes on that country, sneak in holes away,
Shrink from the perils ye were bound to face,
And leave those babes and country to disgrace;
Come here (if such we have), ye dastard herd!
And kneel in dust before this noble bird.

When the speck'd eggs within his nest appear,
Then glows affection, ardent and sincere;
No discord sours him when his mate he meets;
But each warm heart with mutual kindness beats.
For her repast he bears along the lea
The bloated gad-fly, and the balmy bee;
For her repose scours o'er th' adjacent farm,
Whence Hawks might dart, or lurking foes alarm;
For now abroad a band of ruffians prey,
The Crow, the Cuckoo and th' insidious Jay;
These, in the owner's absence, all destroy,
And murder every hope, and every joy.

Soft sits his brooding mate; her guardian he,
Perch'd on the top of some tall neighb'ring tree;
Thence, from the thicket to the concave skies,
His watchful eye around unceasing flies.
Wrens, Thrushes, Warblers, startled at his note,
Fly in affright the consecrated spot.
He drives the plund'ring *Jay*, with honest scorn,
Back to his woods; the *Mocker* to his thorn;
Sweeps round the *Cuckoo*, as the thief retreats;
Attacks the *Crow*; the diving *Hawk* defeats;
Darts on the *Eagle* downwards from afar,
And midst the clouds prolongs the whirling war.

TYRANT FLYCATCHER.

All danger o'er, he hastens back elate,
To guard his post and feed his faithful mate.

Behold him now, his little family flown,
Meek, unassuming, silent and alone;
Lur'd by the well-known hum of fav'rite bees,
As slow he hovers o'er the garden trees;
(For all have failings, passions, whims that lead;
Some fav'rite wish, some appetite to feed;)
Strait he alights, and from the pear-tree spies
The circling stream of humming insects rise;
Selects his prey; darts on the busy brood,
And shrilly twitters o'er his sav'ry food.

Ah! ill-timed triumph! direful note to thee,
That guides thy murderer to the fatal tree;
See where he skulks! and takes his gloomy stand;
The deep-charg'd musquet hanging in his hand;
And gaunt for blood, he leans it on a rest,
Prepar'd, and pointed at thy snow-white breast.
Ah friend! good friend! forbear that barb'rous deed,
Against it valor, goodness, pity plead;
If e'er a family's griefs, a widow's woe,
Have reach'd thy soul, in mercy let him go!
Yet, should the tear of pity nought avail,
Let *interest* speak, let *gratitude* prevail;
Kill not thy friend, who thy whole harvest shields,
And sweeps ten thousand vermin from thy fields;
Think how this dauntless bird, thy poultry's guard,
Drove ev'ry Hawk and Eagle from thy yard;
Watch'd round thy cattle as they fed, and slew
The hungry black'ning swarms that round them flew;
Some small return, some little right resign,
And spare *his* life whose services are thine!

.....I plead in vain! Amid the bursting roar
The poor, lost KING-BIRD, welters in his gore.

This species is eight inches long, and fourteen in extent; the general color above is a dark slaty ash; the head and tail are nearly black; the latter *even* at the end, and tipped with white; the wings are more of a brownish cast; the quills and wing coverts are also edged with dull white; the upper part of the breast is tinged with ash; the throat, and all the rest of the lower parts are pure white; the plumage on the crown, tho not forming a crest, is frequently erected, as represented in the plate, and discovers a rich bed of brilliant orange, or flame color, called by the country people his crown; when the feathers lie close this is altogether concealed. The bill is very broad at the base, overhanging at the point, and notched, of a glossy black color, and furnished with bristles at the base; the legs and feet are black, seamed with grey; the eye hazel. The female differs in being more brownish on the upper parts, has a smaller streak of paler orange on the crown; and a narrower border of duller white on the tail. The young birds do not receive the orange on the head during their residence here the first season.

This bird is very generally known, from the lakes to Florida. Besides insects, they feed, like every other species of their tribe with which I am acquainted, on various sorts of berries, particularly blackberries, of which they are extremely fond. Early in September they leave Pennsylvania on their way to the south.

A few days ago, I shot one of these birds, the whole plumage of which was nearly white, or a little inclining to a cream color; it was a bird of the present year, and could not be more than a month old. This appeared also to have been its original color, as it issued from the egg. The skin was yellowish white; the eye much lighter than usual; the legs and bill blue. It was plump and seemingly in good order. I presented it to Mr. Peale. Whatever may be the cause of this loss of color, if I may so call it, in birds, it is by

no means uncommon among the various tribes that inhabit the United States. The Sparrow Hawk, Sparrow, Robin, Red-winged Blackbird, and many others, are occasionally found in white plumage; and I believe that such birds do not become so by climate, age or disease, but that they are universally hatched so. The same phenomena are observable not only among various sorts of animals, but even among the human race; and a white negro is no less common, in proportion to their numbers, than a white Blackbird; tho the precise cause of this in either is but little understood.

GREAT CRESTED FLYCATCHER.

MUSCICAPA CRINITA.

[Plate XIII.—Fig. 2.]

LINN. *Syst.* 325.—LATH. II, 357.—*Arct. Zool.* p. 386, No. 267.—*Le mouche-rolle de Virginie a huppè verte*, BUFF. IV, 565. *Pl. enl.* 569.—PEALE'S *Museum*, No. 6645.

BY glancing at the physiognomy of this bird and the rest of the figures on the same plate, it will readily be observed, that they all belong to one particular family of the same genus. They possess strong traits of their particular *cast*, and are all remarkably dexterous at their profession of fly-catching. The one now before us is less generally known than the preceding, being chiefly confined to the woods. There his harsh *squeak*, for he has no song, is occasionally heard above most others. He also visits the orchard; is equally fond of bees; but wants the courage and magnanimity of the King-bird. He arrives in Pennsylvania early in May, and builds his nest in a hollow tree deserted by the Blue-bird or Woodpecker. The materials of which this is formed are scanty, and rather novel. One of these nests, now before me, is formed of a little loose hay, feathers of the Guinea fowl, hogs' bristles, pieces of cast snake skins, and dogs' hair. Snake skins with this bird appear to be an indispensable article, for I have never yet found one of his nests without this material forming a part of it. Whether he surrounds his nest with this by way of *terrorem*, to prevent other birds or animals from entering; or whether it be that he finds its silky softness suitable for his young, is uncertain; the fact however is notorious. The female lays four eggs of a dull cream color thickly scratched with purple lines of various tints as if done with a pen. See fig. 2.

This species is eight inches and a half long, and thirteen inches in extent; the upper parts are of a dull greenish olive; the feathers on the head are pointed, centered with dark brown, ragged at the sides, and form a kind of blowzy crest; the throat and upper parts of the breast delicate ash; rest of the lower parts a sulphur yellow; the wing coverts are pale drab, crossed with two bars of dull white; the primaries are of a bright ferruginous or sorrel color; the tail is slightly forked, its interior vanes of the same bright ferruginous as the primaries; the bill is blackish, very much like that of the King-bird, furnished also with bristles; the eye is hazel; legs and feet bluish black. The female can scarcely be distinguished, by its colors, from the male.

This bird also feeds on berries towards the end of summer, particularly on huckle-berries, which, during the time they last, seem to form the chief sustenance of the young birds. I have observed this species here as late as the tenth of September; rarely later. They do not, to my knowledge, winter in any of the southern states.

SMALL GREEN, CRESTED FLYCATCHER.

MUSCICAPA QUERULA.

[Plate XIII.—Fig. 3.]

Muscicapa subviridis, BARTRAM, p. 289.—*Arct. Zool.* p. 386, No. 268.—PEALE'S *Museum*, No. 6825.

THIS bird is but little known. It inhabits the deepest, thick shaded, solitary parts of the woods, sits generally on the lower branches, utters every half minute or so, a sudden sharp squeak, which is heard a considerable way thro the woods; and as it flies from one tree to another has a low querulous note, something like the twitterings of chickens nestling under the wings of the hen. On alighting this sound ceases; and it utters its note as before. It arrives from the south about the middle of May; builds on the upper side of a limb, in a low swampy part of the woods, and lays five white eggs. It leaves us about the beginning of September. It is a rare and very solitary bird, always haunting the most gloomy, moist and unfrequented parts of the forest. It feeds on flying insects; devours bees; and in the season of huckle-berries they form the chief part of its food. Its northern migrations extend as far as Newfoundland.

The length of this species is five inches and a half, breadth nine inches; the upper parts are of a green olive color; the lower pale greenish yellow, darkest on the breast; the wings are deep brown, crossed with two bars of yellowish white, and a ring of the same surrounds the eye, which is hazel. The tail is *rounded* at the end; the bill is remarkably flat and broad, dark brown above, and flesh color below; legs and feet pale ash. The female differs little from the male in color.

PEWIT FLYCATCHER.

MUSCICAPA NUNCIOLA.

[Plate XIII.—Fig. 4.]

BARTRAM, p. 289.—*Black-cap Flycatcher*, LATH. *Syn.* II, 353.—*Phæbe Flycatcher*, *Ibid.* *Sup.* p. 173.—*Le gobe-mouche noirâtre de la Caroline*, BUFF. IV, 541.—*Arct. Zool.* p. 387, No. 269.—PEALE'S *Museum*, No. 6618.

THIS well-known bird is one of our earliest spring visitants, arriving in Pennsylvania about the first week in March, and continuing with us until October. I have seen them here as late as the twelfth of November. In the month of February I overtook these birds lingering in the low swampy woods of North and South Carolina. They were feeding on smilax berries, and chanting occasionally their simple notes. The favorite resort of this bird is by streams of water, under, or near bridges, in caves, &c. Near such places he sits on a projecting twig, calling out *pe-wèe*, *pe-wit-titee pe-wèe*, for a whole morning; darting after insects, and returning to the same twig; frequently flirting his tail, like the Wagtail, tho not so rapidly. He begins to build about the twentieth or twenty-fifth of March, on some projecting part under a bridge—in a cave—in an open well five or six feet down among the interstices of the side walls—often under a shed—in the low eaves of a cottage, and such like places. The outside is composed of mud mixed with moss; is generally large and solid; and lined with flax and horse hair. The eggs are five, pure white, with two or three dots of red near the great end. See fig. 4. I have known them rear three brood in one season.

In a particular part of Mr. Bartram's woods with which I am acquainted, by the side of a small stream, in a cave, five or six feet

high, formed by the undermining of the water below, and the projection of two large rocks above:

There down smooth glist'ning rocks the rivulet pours,
Till in a pool its silent waters sleep,
A dark brow'd cliff, o'ertopp'd with fern and flow'rs,
Hangs, grimly louting, o'er the glassy deep;
Above tho every chink the woodbines creep,
And smooth-bark'd beeches spread their arms around,
Whose roots cling twisted round the rocky steep;
A more sequester'd scene is no where found,
For contemplation deep, and silent thought profound.

In this cave I knew the Pewit to build for several years. The place was solitary, and he was seldom disturbed. In the month of April, one fatal Saturday, a party of boys from the city, armed with guns, dealing indiscriminate destruction among the feathered tribes around them, directed their murderous course this way, and within my hearing destroyed both parents of this old and peaceful settlement. For two successive years, and I believe to this day there has been no Pewee seen about this place. This circumstance almost convinces me that birds, in many instances, return to the same spots to breed; and who knows but like the savage nations of Indians they may usurp a kind of exclusive right of tenure to particular districts where they themselves have been reared.

The notes of the Pewee, like those of the Blue-bird, are pleasing, not for any melody they contain, but from the ideas of spring and returning verdure with all the sweets of this lovely season, which are associated with his simple but lively ditty. Towards the middle of June he becomes nearly silent; and late in the Fall gives us a few farewell and melancholy repetitions, that recal past imagery, and make the decayed and withered face of nature appear still more melancholy.

The Pewit is six inches and a half in length, and nine and a half broad; the upper parts are of a dark dusky olive; the plumage of the head, like those of the two preceding, is loose, subcrested, and of a deep brownish black; wings and tail deep dusky, the former edged on every feather with yellowish white, the latter forked, and widening remarkably towards the end; bill formed exactly like that of the King-bird; whole lower parts a pale delicate yellow; legs and bill wholly black; iris hazel. The female is almost exactly like the male, except in having the crest somewhat more brown. This species inhabits from Canada to Florida; great numbers of them usually wintering in the two Carolinas and Georgia. In New York they are called the Phœby-bird, and are accused of destroying bees. With many people in the country, the arrival of the Pewee serves as a sort of almanack, reminding them that now it is time such and such work should be done. “Whenever the Pewit “appears,” says Mr. Bartram, “we may plant peas and beans in “the open grounds, French beans, sow radishes, onions and almost “every kind of esculent garden seeds, without fear or danger from “frosts; for although we have sometimes frosts after their first appearance for a night or two, yet not so severe as to injure the “young plants.”*

* Travels, page 288.

WOOD PEWEE FLYCATCHER.

MUSCICAPA RAPAX.

[Plate XIII.—Fig. 5.]

Muscicapa virens, LINN. *Syst.* 327.—LATH. *Syn.* II, 350.—*Id. Supp.* p. 174, No. 82.—CATESB. I, 54, fig. 1.—*Le gobe-mouche brun de la Caroline*, BUFF. IV, 543.—*Muscicapa acadica*, GMEL. *Syst.* I, p. 947.—*Arct. Zool.* 387, No. 270.—PEALE'S *Museum*, No. 6660.

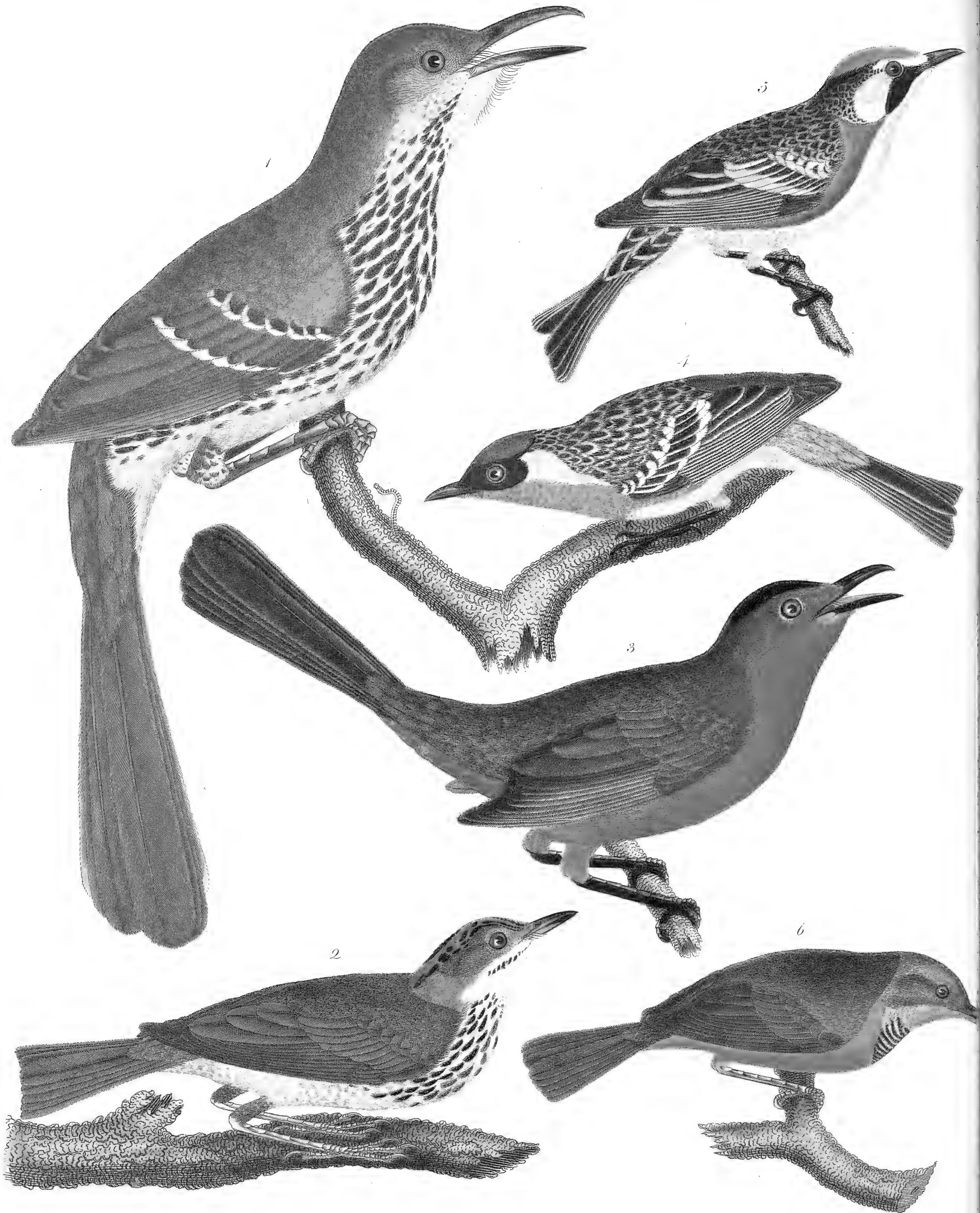
I HAVE given the name Wood Pewee to this species, to discriminate it from the preceding, which it resembles so much in form and plumage as scarcely to be distinguished from it, but by an accurate examination of both. Yet in manners, mode of building, period of migration and notes, the two species differ greatly. The Pewee is among the first birds that visit us in spring, frequenting creeks, building in caves and under arches of bridges; the *Wood Pewee*, the subject of our present account, is among the latest of our summer birds, seldom arriving before the twelfth or fifteenth of May; frequenting the shadiest high timbered woods, where there is little underwood, and abundance of dead twigs and branches shooting across the gloom; generally in low situations; builds its nest on the upper side of a limb or branch, forming it outwardly of moss; but using nomud; and lining it with various soft materials. The female lays five white eggs; and the first brood leave the nest about the middle of June.

This species is an exceeding expert Flycatcher. It loves to sit on the high dead branches, amid the gloom of the woods, calling out in a feeble plaintive tone, *peto wāy; peto wāy; pee way*; occasionally darting after insects; sometimes making a circular sweep of thirty or forty yards, snapping up numbers in its way with great adroitness; and returning to its position and chant as before. In

the latter part of August its notes are almost the only ones to be heard in the woods; about which time, also, it even approaches the city, where I have frequently observed it busily engaged under trees, in solitary courts, gardens, &c. feeding and training its young to their profession. About the middle of September it retires to the south a full month before the other.

Length six inches, breadth ten; back dusky olive inclining to greenish; head subcrested and brownish black; tail forked and widening towards the tips, lower parts pale yellowish white: the only discriminating marks between this and the preceding are the size; and the color of the lower mandible, which in this is yellow—in the Pewee black. The female is difficult to be distinguished from the male.

This species is far more numerous than the preceding; and probably winters much farther south. The Pewee was numerous in North and South Carolina, in February; but the Wood Pewee had not made its appearance in the lower parts of Georgia even so late as the sixteenth of March.



Drawn from Nature by A. Wilson.

Engraved by A. Lawson.

1 Brown Thrush. 2 Golden-Crowned Thr. 3 Cat Bird. 4 Bay-breasted Warbler. 5 Chesnut-sided W. 6 Mourning

FERRUGINOUS THRUSH.

TURDUS RUFUS.

[Plate XIV.—Fig. 1.]

Fox-colored Thrush, CATESBY, I, 28.—*Turdus rufus*, LINN. *Syst.* 293.—LATH. III, 39.—*La Grive de la Caroline*, BRISS. II, 223.—*Le Moqueur François*, DE BUFF. III, 323. *Pl. enl.* 645.—*Arct. Zool. p.* 335, No. 195.—PEALE'S *Museum*, No. 5285.

THIS is the Brown Thrush, or Thrasher of the middle and eastern states; and the French Mocking-bird* of Maryland, Virginia and the Carolinas. It is the largest of all our Thrushes, and is a well known and very distinguished songster. About the middle, or twentieth of April, or generally about the time the cherry trees begin to blossom, he arrives in Pennsylvania; and from the tops of our hedge rows, sassafras, apple or cherry trees, he salutes the opening morning with his charming song, which is loud, emphatical, and full of variety. At that serene hour you may plainly distinguish his voice full half a mile off. These notes are not imitative, as his name would import, and as some people believe, but seem solely his own; and have considerable resemblance to the notes of the Song Thrush (*Turdus Musicus*) of Britain. Early in May he builds his nest, choosing a thorn bush, low cedar, thicket of briars, dogwood sapling, or cluster of vines for its situation, generally within a few feet of the ground. Outwardly it is constructed of small sticks; then layers of dry leaves; and lastly lined with fine fibrous roots; but without any plaster. The eggs are five, thickly sprinkled with ferruginous grains on a very pale bluish ground. They generally have two brood in a season. Like all

* See page 22, for the supposed origin of this name.

birds that build near the ground, he shews great anxiety for the safety of his nest and young, and often attacks the black-snake in their defence; generally too with success; his strength being greater and his bill stronger and more powerful than any other of his tribe within the United States. His food consists of worms, which he scratches from the ground, caterpillars, and many kinds of berries. Beetles, and the whole race of coleopterous insects, wherever he can meet with them, are sure to suffer. He is accused, by some people, of scratching up the hills of Indian corn, in planting time; this may be partly true; but for every grain of maize he pilfers I am persuaded he destroys five hundred insects; particularly a large dirty-colored grub, with a black head, which is more pernicious to the corn and other grain and vegetables, than nine-tenths of the whole feathered race. He is an active, vigorous bird, flies generally low, from one thicket to another, with his long broad tail spread like a fan; is often seen about briar and bramble bushes, along fences; and has a single note or chuck, when you approach his nest. In Pennsylvania they are numerous, but never fly in flocks. About the middle of September, or as soon as they have well recovered from moulting, in which they suffer severely, they disappear for the season. In passing thro the southern parts of Virginia, and south as far as Georgia, in the depth of winter, I found them lingering in sheltered situations, particularly on the border of swamps and rivers. On the first of March they were in full song round the commons at Savannah, as if straining to out-strip the Mocking-bird, that prince of feathered musicians.

The Thrasher is a welcome visitant in spring to every lover of rural scenery and rural song. In the months of April and May, when our woods, hedge-rows, orchards and cherry trees are one profusion of blossoms, when every object around conveys the sweet sensations of joy, and heaven's abundance is as it were showering around us, the grateful heart beats in unison with the varying elevated strains of this excellent bird; we listen to its notes with a

kind of devotional ecstasy, as a morning hymn to the Great and most adorable Creator of all. The human being who, amidst such scenes, and in such seasons of rural serenity and delight, can pass them with cold indifference, and even contempt, I sincerely pity; for abject must that heart be and callous those feelings, and depraved that taste, which neither the charms of nature, nor the melody of innocence, nor the voice of gratitude or devotion can reach.

This bird inhabits North America from Canada to the point of Florida. They are easily reared, and become very familiar when kept in cages; and tho this is rarely done, yet I have known a few instances where they sung in confinement with as much energy as in their native woods. They ought frequently to have earth and gravel thrown in to them, and have plenty of water to bathe in.

The Ferruginous Thrush is eleven inches and a half long, and thirteen in extent; the whole upper parts are of a bright reddish brown; wings crossed with two bars of white, relieved with black; tips and inner vanes of the wings dusky; tail very long, rounded at the end, broad, and of the same reddish brown as the back; whole lower parts yellowish white; the breast, and sides under the wings, beautifully marked with long pointed spots of black, running in chains; chin white; bill very long and stout, not notched, the upper mandible overhanging the lower a little, and beset with strong bristles at the base, black above, and whitish below near the base; legs remarkably strong and of a dusky clay color; iris of the eye brilliant yellow. The female may be distinguished from the male by the white on the wing being much narrower, and the spots on the breast less. In other respects their plumage is nearly alike.

Concerning the sagacity and reasoning faculty of this bird, my venerable friend Mr. Bartram writes me as follows: "I remember
" to have reared one of these birds from the nest; which when full
" grown became very tame and docile. I frequently let him out of

“ his cage to give him a taste of liberty; after fluttering and dust-
“ ing himself in dry sand and earth, and bathing, washing and dress-
“ ing himself, he would proceed to hunt insects, such as beetles,
“ crickets, and other shelly tribes; but being very fond of wasps,
“ after catching them and knocking them about to break their
“ wings, he would lay them down, then examine if they had a
“ sting, and with his bill squeeze the abdomen to clear it of the
“ reservoir of poison, before he would swallow his prey. When in
“ his cage, being very fond of dry crusts of bread, if upon trial the
“ corners of the crumbs were too hard and sharp for his throat,
“ he would throw them up, carry and put them in his water-dish
“ to soften; then take them out and swallow them. Many other
“ remarkable circumstances might be mentioned that would fully
“ demonstrate faculties of *mind*; not only innate, but acquired ideas
“ (derived from necessity in a state of domestication) which we call
“ understanding and knowledge. We see that this bird could asso-
“ ciate those ideas, arrange and apply them in a rational manner,
“ according to circumstances. For instance, if he knew that it was
“ the hard sharp corners of the crumb of bread that hurt his gul-
“ let, and prevented him from swallowing it, and that water would
“ soften and render it easy to be swallowed, this knowledge must
“ be acquired by observation and experience; or some other bird
“ taught him. Here the bird perceived by the effect the cause, and
“ then took the quickest, the most effectual, and agreeable method
“ to remove that cause. What could the wisest man have done
“ better? Call it reason, or instinct, it is the same that a sensible
“ man would have done in this case.

“ After the same manner this bird reasoned with respect to
“ the wasps. He found, by experience and observation, that the
“ first he attempted to swallow hurt his throat, and gave him ex-
“ treme pain; and upon examination observed that the extremity
“ of the abdomen was armed with a poisonous sting; and after this
“ discovery, never attempted to swallow a wasp until he first pinch-

“ ed his abdomen to the extremity, forcing out the sting with the
“ receptacle of poison.”

It is certainly a circumstance highly honorable to the character of birds, and corroborative of the foregoing sentiments, that those who have paid the most minute attention to their manners are uniformly their advocates and admirers. “ He must,” said a gentleman to me the other day, when speaking of another person, “ He must be a good man; for those who have long known him
“ and are most intimate with him respect him greatly and always
“ speak well of him.”

GOLDEN-CROWNED THRUSH.

TURDUS AUROCAPILLA.

[Plate XIV.—Fig. 2.]

EDW. 252.—LATH. III, 21.—*La figuier a tete d'or*, BRISS. III, 504.—*La Grivelette de St. Domingue*, BUFF. III, 317. *Pl. enl.* 398.—*Arct. Zool.* p. 339, No. 203.—*Turdus minimus, vertice Aurio, the least Golden-crown Thrush*, BARTRAM, p. 290.—PEALE'S *Museum*, No. 7122.

THO the epithet *golden crowned*, is not very suitable for this bird, that part of the head being rather of a brownish orange; yet, to avoid confusion, I have retained it.

This is also a migratory species, arriving in Pennsylvania late in April, and leaving us again late in September. It is altogether an inhabitant of the woods, runs along the ground like a lark, and even along the horizontal branches, frequently moving its tail in the manner of the Wagtails. It has no song; but a shrill, energetic twitter, formed by the rapid reiteration of two notes, *peche, peche, peche*, for a quarter of a minute at a time. It builds a snug, somewhat singular nest, on the ground, in the woods, generally on a declivity facing the south. This is formed of leaves and dry grass, and lined with hair. Tho sunk below the surface, it is arched over, and only a small hole left for entrance; the eggs are four, sometimes five, white, irregularly spotted with reddish brown, chiefly near the great end. When alarmed it escapes from the nest with great silence and rapidity, running along the ground like a mouse, as if afraid to tread too heavily on the leaves; if you stop to examine its nest, it also stops, droops its wings, flutters and tumbles along, as if hardly able to crawl, looking back now and then to see whether you are taking notice of it. If you slowly fol-

low, it leads you fifty or sixty yards off, in a direct line from its nest, seeming at every advance to be gaining fresh strength; and when it thinks it has decoyed you to a sufficient distance, it suddenly wheels off and disappears. This kind of deception is practised by many other species of birds that build on the ground; and is sometimes so adroitly performed as actually to have the desired effect of securing the safety of its nest and young.

This is one of those birds frequently selected by the Cow-pen Bunting to be the foster-parent of its young. Into the nest of this bird the Cow-bird deposits its egg, and leaves the result to the mercy and management of the Thrush, who generally performs the part of a faithful and affectionate nurse to the foundling.

The Golden-crowned Thrush is six inches long, and nine in extent; the whole upper parts, except the crown and hind head, are a rich yellow olive; the tips of the wings, and inner vanes of the quills, are dusky brown; from the nostrils a black strip passes to the hind head on each side, between which lies a bed of brownish orange; the sides of the neck are whitish; the whole lower parts white, except the breast, which is handsomely marked with pointed spots of black, or deep brown, as in the figure; round the eye is a narrow ring of yellowish white; legs pale flesh color; bill dusky above, whitish below. The female has the orange on the crown considerably paler.

This bird might with propriety be ranged with the Wagtails, its notes, manners, and habit of building on the ground being similar to these. It usually hatches twice in the season; feeds on small bugs, and the larvæ of insects, which it chiefly gathers from the ground. It is very generally diffused over the United States; and winters in Jamaica, Hispaniola, and other islands of the West Indies.

CAT-BIRD.

TURDUS LIVIDUS.

[Plate XIV.—Fig. 3.]

Muscicapa Carolinensis, LINN. *Syst.* 328.—*Le gobe-mouche brun de Virginie*, BRISS. II, 365.—*Cat-bird*, CATESB. I, 66.—LATHAM, II, 353.—*Le moucherolle de Virginie*, BUFF. IV, 562.—*Lucar lividus, apice nigra, the Cat-bird, or Chicken-bird*, BARTRAM, p. 290.—PEALE'S *Museum*, No. 6770.

WE have here before us a very common and very numerous species, in this part of the United States; and one as well known to all classes of people, as his favorite briars, or blackberry bushes. In spring or summer, on approaching thickets of brambles, the first salutation you receive is from the Cat-bird; and a stranger, unacquainted with its note, would instantly conclude that some vagrant orphan kitten had got bewildered among the briars, and wanted assistance; so exactly does the call of the bird resemble the voice of that animal. Unsuspicious, and extremely familiar, he seems less apprehensive of man than almost any other of our summer visitants; for whether in the woods, or in the garden, where he frequently builds his nest, he seldom allows you to pass without approaching to pay his respects, in his usual way. This humble familiarity and deference, from a stranger too, who comes to rear his young, and spend the summer with us, ought to entitle him to a full share of our hospitality. Sorry I am, however, to say, that this, in too many instances, is cruelly the reverse. Of this I will speak more particularly in the sequel.

About the twenty-eighth of February the Cat-bird first arrives in the lower parts of Georgia from the south, consequently winters not far distant, probably in Florida. On the second week in April

he usually reaches this part of Pennsylvania; and about the beginning of May has already succeeded in building his nest. The place chosen for this purpose is generally a thicket of briars or brambles, a thorn bush, thick vine, or the fork of a small sapling; no great solicitude is shewn for concealment; tho few birds appear more interested for the safety of their nest and young. The materials are dry leaves and weeds, small twigs and fine dry grass, the inside is lined with the fine black fibrous roots of some plant. The female lays four, sometimes five eggs, of a uniform greenish blue color, without any spots. They generally raise two, and sometimes three brood in a season.

In passing thro the woods in summer I have sometimes amused myself with imitating the violent chirping or squeaking of young birds, in order to observe what different species were around me, for such sounds, at such a season in the woods, are no less alarming to the feathered tenants of the bushes than the cry of fire or murder in the streets, is to the inhabitants of a large and populous city. On such occasions of alarm and consternation, the Cat-bird is the first to make his appearance, not singly, but sometimes half a dozen at a time, flying from different quarters to the spot. At this time those who are disposed to play with his feelings may almost throw him into fits, his emotion and agitation are so great, at the distressful cries of what he supposes to be his suffering young. Other birds are variously affected; but none shew symptoms of such extreme suffering. He hurries backwards and forwards, with hanging wings and open mouth, calling out louder and faster, and actually screaming with distress, till he appears hoarse with his exertions. He attempts no offensive means; but he bewails, he implores, in the most pathetic terms with which nature has supplied him, and with an agony of feeling which is truly affecting. Every feathered neighbour within hearing hastens to the place, to learn the cause of the alarm, peeping about with looks of consternation and sympathy. But their own powerful parental duties and domestic concerns soon

oblige each to withdraw. At any other season, the most perfect imitations have no effect whatever on him.

The Cat-bird will not easily desert its nest. I took two eggs from one which was sitting, and in their place put two of the Brown Thrush, or Thrasher; and took my stand at a convenient distance to see how she would behave. In a minute or two the male made his approaches, stooped down and looked earnestly at the strange eggs; then flew off to his mate, who was not far distant, with whom he seemed to have some conversation, and instantly returning, with the greatest gentleness took out both the Thrasher's eggs, first one and then the other, carried them singly about thirty yards, and dropt them among the bushes. I then returned the two eggs I had taken, and soon after the female resumed her place on the nest as before.

From the nest of another Cat-bird I took two half fledged young, and placed them in that of another which was sitting on five eggs. She soon turned them both out. The place where the nest was not being far from the ground, they were little injured, and the male observing their helpless situation, began to feed them with great assiduity and tenderness.

I removed the nest of a Cat-bird, which contained four eggs, nearly hatched, from a fox grape vine, and fixed it firmly and carefully in a thicket of briars close by, without injuring its contents. In less than half an hour I returned, and found it again occupied by the female.

The Cat-bird is one of our earliest morning songsters, beginning generally before break of day, and hovering from bush to bush, with great sprightliness, when there is scarce light sufficient to distinguish him. His notes are more remarkable for singularity than for melody. They consist of short imitations of other birds, and other sounds; but his pipe being rather deficient in clearness and strength of tone, his imitations fail where these are requisite. Yet he is not easily discouraged, but seems to study certain pas-

sages with great perseverance; uttering them at first low, and as he succeeds, higher and more free; no ways embarrassed by the presence of a spectator even within a few yards of him. On attentively listening for some time to him one can perceive considerable variety in his performance, in which he seems to introduce all the odd sounds and quaint passages he has been able to collect. Upon the whole, tho we cannot arrange him with the grand leaders of our vernal choristers, he well merits a place among the most agreeable *general* performers.

This bird, as has been before observed, is very numerous in summer, in the middle states. Scarcely a thicket in the country is without its Cat-birds; and were they to fly in flocks, like many other birds, they would darken the air with their numbers. But their migrations are seldom observed, owing to their *gradual* progress and recession, in spring and autumn, to and from their breeding places. They enter Georgia late in February; and reach New England about the beginning of May. In their migrations they keep pace with the progress of agriculture; and the first settlers in many parts of the Gennessee country have told me, that it was several years after they removed there before the Cat-bird made his appearance among them. With all these amiable qualities to recommend him few people in the country respect the Cat-bird. On the contrary, it is generally the object of dislike; and the boys of the United States entertain the same prejudice and contempt for this bird, its nest and young, as those of Britain do for the Yellow-hammer and its nest eggs and young. I am at a loss to account for this cruel prejudice. Even those by whom it is entertained, can scarcely tell you *why*; only they "hate Cat-birds;" as some persons tell you they hate Frenchmen, they hate Dutchmen, &c. expressions that bespeak their own narrowness of understanding, and want of liberality. Yet, after ruminating over in my own mind all the probable causes, I think I have at last hit on some of them; the principal of which seems to me to be a certain similarity of

taste, and clashing of interest, between the Cat-bird and the farmer. The Cat-bird is fond of large ripe garden strawberries; so is the farmer, for the good price they bring in market. The Cat-bird loves the best and richest early cherries; so does the farmer, for they are sometimes the most profitable of his early fruit. The Cat-bird has a particular partiality for the finest ripe mellow pears; and these are also particular favorites with the farmer. But the Cat-bird has frequently the advantage of the farmer by snatching off the *first-fruits* of these delicious productions; and the farmer takes revenge by shooting him down with his gun, as he finds old hats, wind-mills and scarecrows are no impediments in his way to these forbidden fruits; and nothing but this resource, the *ultimatum* of farmers as well as kings, can restrain his visits. The boys are now set to watch the cherry trees with the gun; and thus commences a train of prejudices and antipathies that commonly continue thro life. Perhaps too, the common note of the Cat-bird, so like the mewing of the animal whose name it bears, and who itself sustains no small share of prejudice, the homeliness of his plumage, and even his familiarity, so proverbially known to beget contempt, may also contribute to this mean, illiberal and persecuting prejudice; but with the generous and the good, the lovers of nature and of rural charms, the confidence which this familiar bird places in man by building in his garden, under his eye, the music of his song, and the interesting playfulness of his manners, will always be more than a recompense for all the little stolen morsels he snatches.

The Cat-bird measures nine inches in length; at a small distance he appears nearly black; but on a closer examination is of a deep slate color above, lightest on the edges of the primaries, and of a considerably lighter slate color below, except the under tail coverts, which are very dark red; the tail, which is rounded, and upper part of the head, as well as the legs and bill, are black. The female differs little in color from the male. Latham takes notice of a bird exactly resembling this, being found at Kamtschatka;

only it wanted the red under the tail: probably it might have been a young bird, in which the red is scarcely observable.

This bird has been very improperly classed among the Fly-catchers. As he never seizes his prey on wing, has none of their manners, feeds principally on fruit, and seems to differ so little from the Thrushes, I think he more properly belongs to the latter tribe than to any other genus we have. His bill, legs and feet, place and mode of building, the color of the eggs, his imitative notes, food and general manners, all justify me in removing him to this genus.

The Cat-bird is one of those unfortunate victims, and indeed the principal, against which credulity and ignorance have so often directed the fascinating quality of the black-snake. A multitude of marvellous stories have been told me by people who have themselves *seen* the poor Cat-birds drawn, or sucked, as they sometimes express it, from the tops of the trees (which by the bye the Cat-bird rarely visits) one by one, into the yawning mouth of the immoveable snake. It has so happened with me that in all the adventures of this kind that I have personally witnessed, the Cat-bird was actually the assailant, and always the successful one. These rencontres never take place but during the breeding time of birds; for whose eggs and young the snake has a particular partiality. It is no wonder that those species whose nests are usually built near the ground, should be the greatest sufferers, and the most solicitous for their safety; hence the cause why the Cat-bird makes such a distinguished figure in most of these marvellous narrations. That a poisonous snake will strike a bird or mouse, and allow it to remain till nearly expiring before he begins to devour it, our observations on the living rattle-snake at present kept by Mr. Peale, satisfy us is a fact; but that the same snake, with eyes, breath, or any other known quality he possesses, should be capable of drawing a bird, reluctantly, from the tree tops to its mouth, is an absurdity too great for *me* to swallow.

I am led to these observations by a note which I received this morning from my worthy friend Mr. Bartram. "Yesterday," says this gentleman, "I observed a conflict, or contest, between a Cat-bird and a snake. It took place in a gravel walk, in the garden, near a dry wall of stone. I was within a few yards of the combatants. The bird pounced or darted upon the snake, snapping his bill; the snake would then draw himself quickly into a coil, ready for a blow; but the bird would cautiously circumvent him at a little distance, now and then running up to and snapping at him; but keeping at a sufficient distance to avoid a blow. After some minutes it became a running fight, the snake retreating; and at last took shelter in the wall. The Cat-bird had young ones in the bushes near the field of battle.

"This may shew the possibility of poisonous snakes biting birds, the operation of the poison causing them to become as it were fascinated."

BAY-BREASTED WARBLER.

SYLVIA CASTANEA.

[Plate XIV.—Fig. 4.]

*Parus peregrinus, the Little Chocolate-breasted Titmouse, BARTRAM, p. 292.—PEALE'S
Museum, No. 7311.*

THIS very rare species passes thro Pennsylvania about the beginning of May, and soon disappears. It has many of the habits of the Titmouse, and all their activity; hanging among the extremity of the twigs, and darting about from place to place, with restless diligence, in search of various kinds of the larvæ of insects. It is never seen here in summer, and very rarely on its return, owing, no doubt, to the greater abundance of foliage at that time, and to the silence and real scarcity of the species. Of its nest and eggs we are altogether uninformed.

The length of this bird is five inches, breadth eleven; throat, breast, and sides under the wings, pale chesnut or bay; forehead, cheeks, line over, and strip thro the eye, black; crown deep chesnut; lower parts dull yellowish white; hind head and back streaked with black on a greyish buff ground; wings brownish black, crossed with two bars of white; tail forked, brownish black, edged with ash, the three exterior feathers marked with a spot of white on their inner edges; behind the eye is a broad oblong spot of yellowish white. The female has much less of the bay color on the breast; the black on the forehead is also less and of a brownish tint. The legs and feet, in both, are dark ash, the claws extremely sharp for climbing and hanging; the bill is black; irides hazel.

The ornithologists of Europe take no notice of this species, and have probably never met with it. Indeed it is so seldom seen

in this part of Pennsylvania that few even of our own writers have mentioned it.

I lately received a very neat drawing of this bird, done by a young lady in Middleton, Connecticut, where it seems also to be a rare species.

CHESNUT-SIDED WARBLER.

SYLVIA PENNSYLVANICA.

[Plate XIV.—Fig. 5.]

LINN. *Syst.* 333.—*Red-throated Flycatcher*, EDW. 301.—*Bloody-side Warbler*, TURTON, *Syst.* I, p. 596.—*La figuier a poitrine rouge*, BUFF. V, 308.—BRISS. *Add.* 105.—LATH. II, 489.—*Arct. Zool.* p. 405, No. 298.—PEALE'S *Museum*, No. 7006.

OF this bird I can give but little account. It is one of those transient visitors that pass thro Pennsylvania in April and May, on their way farther north to breed. During its stay here, which seldom exceeds a week or ten days, it appears actively engaged among the opening buds and young leaves, in search of insects; has no song but a feeble chirp or twitter; and is not numerous. As it leaves us early in May, it probably breeds in Canada, or perhaps some parts of New England; tho I have no certain knowledge of the fact. In a whole day's excursion it is rare to meet with more than one or two of these birds; tho a thousand individuals of some species may be seen in the same time. Perhaps they may be more numerous on some other part of the continent.

The length of this species is five inches, the extent seven and three quarters. The front, line over the eye, and ear feathers are pure white, upper part of the head brilliant yellow; the lores, and space immediately below, is marked with a triangular patch of black; the back and hind head is streaked with grey, dusky, black and dull yellow; wings black, primaries edged with pale blue, the first and second row of coverts broadly tipped with pale yellow, secondaries broadly edged with the same; tail black, handsomely forked, exteriorly edged with ash, the inner webs of the three exterior feathers with each a spot of white; from the extremity of

the black at the lower mandible, on each side, a streak of deep reddish chesnut descends along the sides of the neck, and under the wings to the root of the tail; the rest of the lower parts are pure white; legs and feet ash; bill black; irides hazel. The female has the hind head much lighter, and the chesnut on the sides is considerably narrower and not of so deep a tint.

Turton and some other writers have bestowed on this little bird the singular epithet of *bloody-sided*, for which I was at a loss to know the reason, the color of that part being a plain chesnut; till on examining Mr. Edwards's colored figure of this bird in the public library of this city, I found its side tinged with a brilliant blood color. Hence, I suppose, originated the name!

MOURNING WARBLER.

SYLVIA PHILADELPHIA.

[Plate XIV.—Fig. 6.]

I HAVE now the honor of introducing to the notice of naturalists and others, a very modest and neat little species, which has hitherto eluded their research. I must also add, with regret, that it is the only one of its kind I have yet met with. The bird from which the figure in the plate was taken was shot in the early part of June, on the border of a marsh, within a few miles of Philadelphia. It was flitting from one low bush to another, very busy in search of insects; and had a sprightly and pleasant warbling song, the novelty of which first attracted my attention. I have traversed the same and many such places, every spring and summer since, in expectation of again meeting with some individual of the species; but without success. I have, however, the satisfaction to say, that the drawing was done with the greatest attention to peculiarity of form, markings and tint of plumage; and the figure on the plate is a good resemblance of the original. I have yet hopes of meeting, in some of my excursions, with the female, and should I be so fortunate, shall represent her in some future volume of the present work, with such further remarks on their manners, &c. as I may then be enabled to make.

There are two species mentioned by Turton to which the present has some resemblance, *viz.* *Motacilla mitrata*, or Mitred Warbler, and *M. cucullata*, or Hooded Warbler, both birds of the United States, or more properly a single bird; for they are the same species twice described, namely, the Hooded Warbler. The difference, however, between that and the present is so striking, as

to determine this at once to be a very distinct species. The singular appearance of the head, neck and breast, suggested the name.

The Mourning Warbler is five inches long, and seven in extent; the whole back, wings and tail, are of a deep greenish olive, the tips of the wings and the center of the tail feathers excepted, which are brownish; the whole head is of a dull slate color; the breast is ornamented with a singular crescent of alternate transverse lines of pure glossy white, and very deep black; all the rest of the lower parts are of a brilliant yellow; the tail is rounded at the end; legs and feet a pale flesh color; bill deep brownish black above, lighter below; eye hazel.



1. Red-headed Woodpecker 2. Brown-headed Nuthatch 3. Pigeon Hawk 4. Blue-winged Yellow Warbler.
5. Golden-winged W. 6. Blue-eyed Yellow W. 7. Black-breasted Blue W.

RED-COCKADED WOODPECKER.

PICUS QUERULUS.

[Plate XV.—Fig. 1.]

PEALE'S *Museum*, No. 2027.

THIS new species I first discovered in the pine woods of North Carolina. The singularity of its voice, which greatly resembles the chirping of young nestlings, and the red streak on the side of its head, suggested the specific name I have given it. It also extends thro South Carolina and Georgia, at least as far as the Altamaha river. Observing the first specimen I found to be so slightly marked with red, I suspected it to be a young bird, or imperfect in its plumage; but the great numbers I afterwards shot, satisfied me that this is a peculiarity of the species. It appeared exceedingly restless, active, and clamorous; and every where I found its manners the same.

This bird seems to be an intermediate link between the Red-bellied and the Hairy Woodpecker, represented in plates VII and IX of the first volume of this work. It has the back of the former, and the white belly and spotted neck of the latter; but wants the breadth of red in both, and is less than either. A preserved specimen has been deposited in the Museum of this city.

This Woodpecker is seven inches and a half long, and thirteen broad; the upper part of the head is black; the back barred with twelve white transversely semicircular lines and as many of black, alternately; the cheeks and sides of the neck are white; whole lower parts the same; from the lower mandible a list of black passes towards the shoulder of the wing, where it is lost in

small black spots on each side of the breast; the wings are black, spotted with white; the four middle tail feathers black, the rest white spotted with black; rump black, variegated with white; the vent white spotted with black; the hairs that cover the nostrils are of a pale cream color; the bill deep slate; but what forms the most distinguishing peculiarity of this bird is a fine line of vermilion on each side of the head, seldom occupying more than the edge of a single feather. The female is destitute of this ornament; but in the rest of her plumage differs in nothing from the male. The iris of the eye, in both, was hazel.

The stomachs of all those I opened were filled with small black insects, and fragments of large beetles. The posterior extremities of the tongue reached nearly to the base of the upper mandible.

BROWN-HEADED NUTHATCH.

SITTA PUSILLA.

[Plate XV.—Fig. 2.]

Small Nuthatch, CATESBY, *Car.* I, 22, *upper figure*.—*Le Petite Sittelle à tête brune*, BUFF: V, 474.—PEALE'S *Museum*, No. 2040.—BRISS. III, 958.—LATH. I, 651, C.

THIS bird is chiefly an inhabitant of Virginia and the southern states, and seems particularly fond of pine trees. I have never yet discovered it either in Pennsylvania or any of the regions north of this. Its manners are very similar to those of the Red-bellied Nuthatch, represented in Plate II of this work; but its notes are more shrill and chirping. In the countries it inhabits it is a constant resident; and in winter associates with parties, of eight or ten, of its own species, who hunt busily from tree to tree, keeping up a perpetual screeching. It is a frequent companion of the Woodpecker figured beside it; and you rarely find the one in the woods without observing or hearing the other not far off. It climbs equally in every direction, on the smaller branches as well as on the body of the tree, in search of its favorite food, small insects and their larvæ. It also feeds on the seeds of the pine tree. I have never met with its nest.

This species is four inches and a quarter long, and eight broad; the whole upper part of the head and neck, from the bill to the back, and as far down as the eyes, is light brown, or pale ferruginous, shaded with darker touches, with the exception of a spot of white near the back; from the nostril thro the eyes the brown is deepest, making a very observable line there; the chin, and sides of the neck under the eyes, are white; the wings dusky; the coverts and three secondaries next the body a slate or lead color; which

is also the color of the rest of the upper parts; the tail is nearly even at the end, the two middle feathers slate color, the others black, tipped with slate, and crossed diagonally with a streak of white; legs and feet dull blue; upper mandible black, lower blue at the base; iris hazel. The female differs in having the brown on the head rather darker, and the line thro the eye less conspicuous.

This diminutive bird is little noticed in history, and what little has been said of it by Europeans is not much to its credit. It is characterized as "a very stupid bird," which may easily be knocked down, from the sides of the tree, with one's cane. I confess I found it a very dexterous climber; and so rapid and restless in its motions as to be shot with difficulty. Almost all very small birds seem less suspicious of man than large ones; but that activity and restless diligence should constitute *stupidity*, is rather a new doctrine. Upon the whole, I am of opinion, that a person who should undertake the destruction of these birds, at even a dollar a head for all he knocked down with his cane, would run a fair chance of starving by his profession.

PIGEON HAWK.

FALCO COLUMBARIUS.[Plate XV.—Fig. 3.—*Male.*]

LINN. *Syst.* p. 128, No. 21.—LATH. *Syn.* v. I, p. 101, No. 86.—*L'Epervier de la Caroline*, BRISS. *Orn.* I, p. 238.—CATESB. I, p. 3, t. 3.—BARTRAM, p. 290.—TURTON, *Syst.* v. I, p. 162.—PEALE'S *Museum*, No. 352.

THIS small Hawk possesses great spirit and rapidity of flight. He is generally migratory in the middle and northern states, arriving in Pennsylvania early in spring, and extending his migrations as far north as Hudson's bay. After building and rearing his young, he retires to the south early in November. Small birds and mice are his principal food. When the Reed-birds, Grakles, and Red-winged Blackbirds congregate in large flights, he is often observed hovering in their rear, or on their flanks, picking up the weak, the wounded or stragglers; and frequently making a sudden and fatal sweep into the very midst of their multitudes. The flocks of Robins and Pigeons are honored with the same attentions from this marauder; whose daily excursions are entirely regulated by the movements of the great body on whose unfortunate members he fattens. The individual from which the drawing on the plate was taken, was shot in the meadows below Philadelphia in the month of August. He was carrying off a Blackbird (*Oriolus phoeniceus*) from the flock, and tho mortally wounded and dying, held his prey fast till his last expiring breath; having struck his claws into its very heart. This was found to be a male. Sometimes when shot at, and not hurt, he will fly in circles over the sportsman's head, shrieking out with great violence, as if highly irritated. He frequently flies low, skimming a little above the field. I have never seen his nest.

The Pigeon Hawk is eleven inches long, and twenty-three broad; the whole upper parts are of a deep dark brown, except the tail, which is crossed with bars of white; the inner vanes of the quill feathers are marked with round spots of reddish brown; the bill is short, strongly toothed, of a light blue color, and tipped with black; the skin surrounding the eye greenish; cere the same; temples and line over the eye lighter brown; the lower parts brownish white, streaked laterally with dark brown; legs yellow, claws black. The female is an inch and a half longer, of a still deeper color, tho marked nearly in the same manner with the exception of some white on the hind head. The femoral or thigh feathers in both are of a remarkable length, reaching nearly to the feet, and are also streaked longitudinally with dark brown. The irides of the eyes of this bird have been hitherto described as being of a brilliant yellow; but every specimen I have yet met with had the iris of a deep hazel. I must therefore follow nature, in opposition to very numerous and respectable authorities.

I cannot, in imitation of European naturalists, embellish the history of this species with anecdotes of its exploits in falconry. This science, if it may be so called, is among the few that have never yet travelled across the Atlantic; neither does it appear that the idea of training our Hawks or Eagles to the chase ever suggested itself to any of the Indian nations of North America. The Tartars, however, from whom, according to certain writers, many of these nations originated, have long excelled in the practice of this sport; which is indeed better suited to an open country than to one covered with forest. Tho once so honorable and so universal, it is now much disused in Europe, and in Britain is nearly extinct. Yet I cannot but consider it as a much more noble and princely amusement than horse-racing and cock-fighting, cultivated in certain states with so much care; or even than pugilism, which is still so highly patronized in some of those enlightened countries.

BLUE-WINGED YELLOW WARBLER.

SYLVIA SOLITARIA.

[Plate XV.—Fig. 4.]

Parus aureus alis ceruleis, BARTRAM, p. 292.—EDW. *pl.* 277, *upper figure*.—*Pine Warbler*,
Arct. Zool. p. 412, No. 318.—PEALE'S *Museum*, No. 7307.

THIS bird has been mistaken for the *Pine Creeper* of Catesby. It is a very different species. It comes to us early in May from the south; haunts thickets and shrubberies, searching the branches for insects; is fond of visiting gardens, orchards, and willow trees, of gleaning among blossoms, and currant bushes; and is frequently found in very sequestered woods, where it generally builds its nest. This is fixed in a thick bunch or tussock of long grass, sometimes sheltered by a briar bush. It is built in the form of an inverted cone, or funnel, the bottom thickly bedded with dry beech leaves, the sides formed of the dry bark of strong weeds, lined within with fine dry grass. These materials are not placed in the usual manner *circularly*, but shelving downwards on all sides from the top; the mouth being wide, the bottom very narrow, filled with leaves, and the eggs or young occupying the middle. The female lays five eggs, pure white, with a few very faint dots of reddish near the great end; the young appear the first week in June. I am not certain whether they raise a second brood in the same season.

I have met with several of these nests, always in a retired tho open part of the woods, and very similar to each other.

The first specimen of this bird taken notice of by European writers was transmitted, with many others, by Mr. William Bartram to Mr. Edwards, by whom it was drawn and etched in the 277th plate of his *Ornithology*. In his remarks on this bird he

seems at a loss to determine whether it is not the Pine Creeper of Catesby;* a difficulty occasioned by the very imperfect coloring and figure of Catesby's bird. The Pine Creeper, however, is a much larger bird, is of a dark yellow olive above, and orange yellow below; has all the habits of a Creeper, alighting on the trunks of the pine trees, running nimbly round them, and according to Mr. Abbot, builds a pensile nest. I observed thousands of them in the pine woods of Carolina and Georgia, where they are resident, but have never met with them in any part of Pennsylvania.

This species is five inches and a half long, and seven and a half broad; hind head and whole back a rich green olive; crown and front orange yellow; whole lower parts yellow, except the vent feathers, which are white; bill black above, lighter below; lores black; the form of the bill approximates a little to that of the Finch; wings and tail deep brown, broadly edged with pale slate, which makes them appear wholly of that tint, except at the tips; first and second row of coverts tipped with white slightly stained with yellow; the three exterior tail feathers have their inner vanes nearly all white; legs pale bluish; feet dirty yellow; the two middle tail feathers are pale slate. The female differs very little in color from the male.

This species very much resembles the Prothonotary Warbler of Pennant and Buffon; the only difference I can perceive on comparing specimens of each is that the yellow of the Prothonotary is more of an orange tint, and the bird somewhat larger.

* Catesby, Car. vol. i, pl. 61.

BLUE-EYED YELLOW WARBLER.

SYLVIA CITRINELLA.

[Plate XV.—Fig. 5.]

Yellow-poll Warbler, LATH. *Syn. v.* II, No. 148.—*Arct. Zool.* p. 402, No. 292.—*Le Figuier tacheté*, BUFF. *Ois.* V, p. 285.—*Motacilla æstiva*, TURTON'S *Syst.* p. 615.—*Parus luteus*, *Summer Yellow-bird*, BARTRAM, p. 292.—PEALE'S *Museum*, No. 7266.

THIS is a very common summer species, and appears almost always actively employed among the leaves and blossoms of the willows, snowball shrub, and poplars, searching after small green caterpillars, which are its principal food. It has a few shrill notes, uttered with emphasis, but not deserving the name of song. It arrives in Pennsylvania about the beginning of May; and departs again for the south about the middle of September. According to Latham it is numerous in Guiana, and is also found in Canada. It is a very sprightly, unsuspicious and familiar little bird; is often seen in and about gardens, among the blossoms of fruit trees and shrubberies; and, on account of its color, is very noticeable. Its nest is built with great neatness, generally in the triangular fork of a small shrub, near, or among, briar bushes. Outwardly it is composed of flax or tow, in thick circular layers, strongly twisted round the twigs that rise thro its sides, and lined within with hair and the soft downy substance from the stalks of fern. The eggs are four or five, of a dull white, thickly sprinkled near the great end with specks of pale brown. They raise two brood in the season. This little bird, like many others, will feign lameness to draw you away from its nest, stretching out his neck, spreading and bending down his tail until it trails along the branch, and fluttering feebly along to draw you after him; sometimes looking back to see if you are

following him, and returning back to repeat the same manœuvres in order to attract your attention. The male is most remarkable for this practice.

The Blue-eyed Warbler is five inches long and seven broad; hind head and back greenish yellow; crown, front and whole lower parts rich golden yellow; breast and sides streaked laterally with dark red; wings and tail deep brown, except the edges of the former and the *inner* vanes of the latter, which are yellow; the tail is also slightly forked; legs a pale clay color; bill and eye-lids light blue. The female is of a less brilliant yellow, and the streaks of red on the breast are fewer and more obscure. Buffon is mistaken in supposing No. 1, of Pl. enl. Plate lviii, to be the female of this species.

GOLDEN-WINGED WARBLER.

SYLVIA CHRYSOPTERA.

[Plate XV.—Fig. 6.]

EDW. 299.—*Le figuier aux ailes dorées*, BUFF. V, 311.—LATH. II, 492.—*Arct. Zool.* 403, No. 295. *Ib.* No. 296.—*Motacilla chrysoptera*, TURT. *Syst.* I, 597.—*Mot. flavifrons*, *Yellow-fronted W.* Id. 601.—*Parus alis aureis*, BARTRAM, p. 292.—PEALE'S *Museum*, No. 7010.

THIS is another spring passenger thro the United States to the North. This bird, as well as fig. 4, from the particular form of its bill ought rather to be separated from the Warblers; or, along with several others of the same kind, might be arranged as a sub genera, or particular family of that tribe, which might with propriety be called *Worm-eaters*, the *Motacilla vermicivora* of Turton having the bill exactly of this form. The habits of these birds partake a good deal of those of the Titmouse; and in their language and action they very much resemble them. All that can be said of this species is, that it appears in Pennsylvania for a few days, about the last of April or beginning of May, darting actively among the young leaves and opening buds, and is rather a scarce species.

The Golden-winged Warbler is five inches long, and seven broad; the crown golden yellow; the first and second row of wing coverts of the same rich yellow; the rest of the upper parts a deep ash, or dark slate color; tail slightly forked, and, as well as the wings, edged with whitish; a black band passes thro the eye, and is separated from the yellow of the crown by a fine line of white; chin and throat black, between which and that passing thro the eye runs a strip of white, as in the figure; belly and vent white;

bill black, gradually tapering to a sharp point; legs dark ash; irides hazel.

Pennant has described this species twice, first as the Golden-winged Warbler, and immediately after as the Yellow-fronted Warbler. See the synonyms at the beginning of this article.

BLACK-THROATED BLUE WARBLER.

SYLVIA CANADENSIS.

[Plate XV.—Fig. 7.]

Motacilla Canadensis, LINN. *Syst.* 336.—*Le figuier bleu*, BUFF. V, 304. *Pl. enl.* 685, *fig.* 2.
—LATH. *Syn.* II, *p.* 487, *No.* 113.—EDW. 252.—*Arct. Zool.* *p.* 399, *No.* 285.—PEALE'S
Museum, *No.* 7222.

I KNOW little of this bird. It is one of those transient visitors that in the month of April pass thro Pennsylvania on its way to the north to breed. It has much of the Flycatcher in its manners, tho the form of its bill is decisively that of the Warbler. These birds are occasionally seen for about a week or ten days, *viz.* from the twenty-fifth of April to the end of the first week in May. I sought for them in the southern states, in winter, but in vain. It is highly probable that they breed in Canada; but the summer residents among the feathered race, on that part of the continent, are little known or attended to. The habits of the bear, the deer and beaver, are much more interesting to those people, and for a good substantial reason too, because more *lucrative*; and unless there should arrive an order from England for a cargo of skins of Warblers and Flycatchers, sufficient to make them an object worth speculation, we are likely to know as little of them hereafter as at present.

This species is five inches long, and seven and a half broad, and is wholly of a fine light slate color above; the throat, cheeks, front and upper part of the breast is black; wings and tail dusky black, the primaries marked with a spot of white immediately below their coverts; tail edged with blue; belly and vent white; legs and feet dirty yellow; bill black, and beset with bristles at

the base. The female is more of a dusky ash on the breast; and in some specimens nearly white.

They no doubt pass this way on their return in autumn, for I have myself shot several in that season; but as the woods are then still thick with leaves, they are much more difficult to be seen; and make a shorter stay than they do in spring.



1 American Sparrow Hawk. 2 Field Sparrow. 3 Tree Sp. 4 Song Sp. 5 Chipping Sp. 6 Snow Bird.

AMERICAN SPARROW HAWK.

FALCO SPARVERIUS.[Plate XVI.—Fig. 1.—*Female.*]

Emerillon de St. Domingue, BUFF. I, 291. *Pl. enl.* 465.—*Arct. Zool.* 212.—*Little Falcon*,
LATH. *Syn.* v. I, p. 110, No. 94. *Ib.* 95.—PEALE'S *Museum*, No 389.

IN no department of ornithology has there been greater confusion, or more mistakes made, than among this class of birds of prey. The great difference of size between the male and female, the progressive variation of plumage to which, for several years, they are subject, and the difficulty of procuring a sufficient number of specimens for examination; all these causes conspire to lead the naturalist into almost unavoidable mistakes. For these reasons, and in order, if possible, to ascertain each species of this genus distinctly, I have determined, where any doubt or ambiguity prevails, to represent both male and female, as fair and perfect specimens of each may come into my possession. According to fashionable etiquette the honor of precedence, in the present instance, is given to the *female* of this species; both because she is the most courageous, the largest and handsomest of the two, best ascertained, and less subject to change of color than the male, who will require some further examination and more observation, before we can venture to introduce him.

This bird is a constant resident in almost every part of the United States, particularly in the states north of Maryland. In the southern states there is a smaller species found, which is destitute of the black spots on the head; the legs are long and very slender, and the wings light blue. This has been supposed, by some, to be the male of the present species; but this is an error. The eye of the present species is dusky; that of the smaller species a bril-

liant orange; the former has the tail *rounded* at the end, the latter slightly *forked*. Such essential differences never take place between two individuals of the same species. It ought, however, to be remarked, that in all the figures and descriptions I have hitherto met with of the bird now before us, the iris is represented of a bright golden color; but in all the specimens I have shot I uniformly found the eye very dark, almost black, resembling a globe of black glass. No doubt the golden color of the iris would give the figure of the bird a more striking appearance; but in works of natural history to sacrifice truth to mere picturesque effect is detestable; tho, I fear, but too often put in practice.

The nest of this species is usually built in a hollow tree; generally pretty high up, where the top or a large limb has been broken off. I have never seen its eggs; but have been told that the female generally lays four or five, which are of a light brownish yellow color, spotted with a darker tint; the young are fed on grasshoppers, mice, and small birds, the usual food of the parents.

The habits and manners of this bird are well known. It flies rather irregularly, occasionally suspending itself in the air, hovering over a particular spot for a minute or two, and then shooting off in another direction. It perches on the top of a dead tree, or pole in the middle of a field or meadow, and as it alights shuts its long wings so suddenly that they seem instantly to disappear; it sits here in an almost perpendicular position, sometimes for an hour at a time, frequently jerking its tail, and reconnoitring the ground below, in every direction, for mice, lizards, &c. It approaches the farm-house, particularly in the morning, skulking about the barn-yard for mice or young chickens. It frequently plunges into a thicket after small birds, as if by random; but always with a particular, and generally a fatal, aim. One day I observed a bird of this species perched on the highest top of a large poplar, on the skirts of the wood; and was in the act of raising the gun to my eye when he swept down with the rapidity of an arrow

into a thicket of briars about thirty yards off; where I shot him dead; and on coming up found the small Field Sparrow (fig. 2,) quivering in his grasp. Both our aims had been taken in the same instant, and, unfortunately for him, both were fatal. It is particularly fond of watching along hedge rows, and in orchards, where those small birds, represented in the same plate, usually resort. When grasshoppers are plenty they form a considerable part of its food.

Tho small snakes, mice, lizards, &c. be favorite morsels with this active bird; yet we are not to suppose it altogether destitute of delicacy in feeding. It will seldom or never eat of any thing that it has not itself killed, and even that, if not (as epicures would term it) *in good eating order*, is sometimes rejected. A very respectable friend, thro the medium of Mr. Bartram, informs me, that one morning he observed one of these Hawks dart down on the ground, and seize a mouse, which he carried to a fence post; where, after examining it for some time, he left it; and, a little while after, pounced upon another mouse, which he instantly carried off to his nest, in the hollow of a tree hard by. The gentleman, anxious to know why the Hawk had rejected the first mouse, went up to it, and found it to be almost covered with lice, and greatly emaciated! Here was not only delicacy of taste, but sound and prudent reasoning.—“If I carry this to my nest,” thought he, “it will fill it with vermin; and hardly be worth eating.”

The Blue Jays have a particular antipathy to this bird, and frequently insult it by following and imitating its notes so exactly as to deceive even those well acquainted with both. In return for all this abuse the Hawk contents himself with, now and then, feasting on the plumpest of his persecutors; who are therefore in perpetual dread of him; and yet, thro some strange infatuation, or from fear that if they lose sight of him he may attack them unawares, the Sparrow Hawk no sooner appears than the alarm is given, and the whole posse of Jays follow.

The female of this species which is here faithfully represented from a very beautiful living specimen, furnished by a particular friend, is eleven inches long, and twenty-three from tip to tip of the expanded wings. The cere and legs are yellow; bill blue, tipped with black; space round the eye greenish blue; iris deep dusky; head bluish ash; crown rufous; seven spots of black on a white ground surround the head in the manner represented in the figure; whole upper parts reddish bay transversely streaked with black; primary and secondary quills black, spotted on their inner vanes with brownish white; whole lower parts yellowish white, marked with longitudinal streaks of brown, except the chin, vent and femoral feathers which are white; claws black.

The male of this species (which is an inch and a half shorter, has the shoulder of the wings blue, and also the black marks on the head; but is in other respects very differently marked from the female) will appear in an early part of the present work; with such other particulars as may be thought worthy of communicating.

FIELD SPARROW.

FRINGILLA PUSILLA.

[Plate XVI.—Fig. 2.]

Passer agrestis, BARTRAM, p. 291.—PEALE'S *Museum*, No. 6560.

THIS is the smallest of all our Sparrows, and in Pennsylvania is generally migratory. It arrives early in April, frequents dry fields covered with long grass, builds a small nest on the ground, generally at the foot of a briar, lines it with horse hair; lays six eggs so thickly sprinkled with ferruginous as to appear altogether of that tint; and raises two, and often three, brood in a season. It is more frequently found in the middle of fields and orchards than any of the other species, which usually lurk along hedge rows. It has no song; but a kind of chirruping not much different from the chirpings of a cricket. Towards Fall they assemble in loose flocks in orchards and corn-fields, in search of the seeds of various rank weeds; and are then very numerous. As the weather becomes severe, with deep snow, they disappear. In the lower parts of North and South Carolina I found this species in multitudes in the months of January and February. When disturbed they take to the bushes, clustering so close together that a dozen may easily be shot at a time. I continued to see them equally numerous thro the whole lower parts of Georgia; from whence, according to Mr. Abbot, they all disappear early in the spring.

None of our birds have been more imperfectly described than that family of the Finch tribe usually called Sparrows. They have been considered as too insignificant for particular notice, yet they possess distinct characters, and some of them peculiarities, well

worthy of notice. They are innocent in their habits, subsisting chiefly on the small seeds of wild plants, and seldom injuring the property of the farmer. In the dreary season of winter some of them enliven the prospect by hopping familiarly about our doors, humble pensioners on the sweepings of the threshold.

The present species has never before, to my knowledge, been figured. It is five inches and a quarter long, and eight inches broad; bill and legs a reddish cinnamon color; upper part of the head deep chesnut divided by a slight streak of drab widening as it goes back; cheeks, line over the eye, breast and sides under the wings a brownish clay color, lightest on the chin, and darkest on the ear feathers; a small streak of brown at the lower angle of the bill; back streaked with black, drab, and bright bay, the latter being generally centered with the former; rump dark drab, or cinereous; wings dusky black, the primaries edged with whitish, the secondaries bordered with bright bay; greater wing coverts black, edged and broadly tipped with brownish white; tail dusky black, edged with clay color: male and female nearly alike in plumage; the chesnut on the crown of the male rather brighter.

TREE SPARROW.

FRINGILLA ARBOREA.

[Plate XVI.—Fig. 3.]

Le Soulciet, BUFF. III, 500.—*Moineau de Canada*, BRISS. III, 101. *Pl. enl.* 223.—LATH. II, 252.—EDW. 269.—*Arct. Zool.* p. 373, No. 246.—PEALE'S *Museum*, No. 6575.

THIS Sparrow is a native of the north, who takes up his winter quarters in Pennsylvania, and most of the northern states, as well as several of the southern ones. He arrives here about the beginning of November; and leaves us again early in April; associates in flocks with the Snow-birds, frequents sheltered hollows, thickets, and hedge-rows, near springs of water; and has a low warbling note, scarcely audible at the distance of twenty or thirty yards. If disturbed takes to trees, like the White-throated Sparrow, but contrary to the habit of most of the others, who are inclined rather to dive into thickets. Mr. Edwards has erroneously represented this as the female of the Mountain Sparrow; but that judicious and excellent naturalist, Mr. Pennant, has given a more correct account of it, and informs us, that it inhabits the country bordering on Hudson's bay during summer; comes to Severn settlement in May; advances farther north to breed; and returns in autumn on its way southward. It also visits Newfoundland.*

By some of our own naturalists this species has been confounded with the Chipping Sparrow (fig. 5), which it very much resembles; but is larger and handsomer; and is never found with us in summer. The former departs for the south about the same time that the latter arrives from the north; and from this circumstance, and their general resemblance, has arisen the mistake.

* *Arct. Zool.* vol. II, p. 373.

The Tree Sparrow is six inches and a half long, and nine and a half in extent; the whole upper part of the head is of a bright reddish chesnut, sometimes slightly skirted with grey; from the nostrils over the eye passes a white strip fading into pale ash as it extends back; sides of the neck, chin and breast very pale ash; the center of the breast marked with an obscure spot of dark brown; from the lower angle of the bill proceeds a slight streak of chesnut; sides under the wings pale brown; back handsomely streaked with pale drab, bright bay and black; lower part of the back and rump brownish drab; lesser wing coverts black, edged with pale ash; wings black, broadly edged with bright bay; the first and second row of coverts tipped with pure white; tail black, forked, and exteriorly edged with dull white; belly and vent brownish white; bill black above, yellow below; legs a brownish clay color; feet black. The female is about half an inch shorter; the chesnut or bright bay on the wings, back and crown is less brilliant; and the white on the coverts narrower, and not so pure. These are all the differences I can perceive.

SONG SPARROW.

FRINGILLA MELODIA.

[Plate XVI.—Fig. 4.]

Fasciated Finch? Arct. Zool. p. 375, No. 252.—PEALE'S Museum, No. 6573.

SO nearly do many species of our Sparrows approximate to each other in plumage, and so imperfectly have they been taken notice of, that it is absolutely impossible to say, with certainty, whether the present species has ever been described or not. And yet, of all our Sparrows, this is the most numerous, the most generally diffused over the United States, and by far the earliest, sweetest, and most lasting songster. It may be said to be partially migratory, many passing to the south in the month of November; and many of them still remaining with us, in low close sheltered meadows and swamps, during the whole of winter. It is the first singing bird in spring, taking precedence even of the Pewee and Bluebird. Its song continues occasionally during the whole summer and Fall; and is sometimes heard even in the depth of winter. The notes, or chant, are short but very sweet, resembling the beginning of the Canary's song, and frequently repeated, generally from the branches of a bush or small tree, where it sits chanting for an hour together. It is fond of frequenting the borders of rivers, meadows, swamps, and such like watery places; and if wounded, and unable to fly, will readily take to the water, and swim with considerable rapidity. In the great cypress swamps of the southern states in the depth of winter, I observed multitudes of these birds mixed with several other species; for these places appear to be the grand winter rendezvous of almost all our Spar-

rows. I have found this bird in every district of the United States from Canada to the southern boundaries of Georgia; but Mr. Abbot informs me, that he knows of only one or two species that remain in that part of Georgia during the summer.

The Song Sparrow builds in the ground, under a tuft of grass; the nest is formed of fine dry grass, and lined with horse hair; the eggs are four or five, thickly marked with spots of reddish brown on a white, sometimes bluish white ground; if not interrupted, he raises three brood in the season. I have found his nest with young as early as the twenty-sixth of April, and as late as the twelfth of August. What is singular, the same bird often fixes his nest in a cedar tree, five or six feet from the ground. Supposing this to have been a *variety*, or different species, I have examined the bird, nest and eggs, with particular care, several times; but found no difference. I have observed the same accidental habit in the Red-winged Blackbird, which sometimes builds among the grass, as well as on alder bushes.

This species is six inches and a half long, and eight and a half in extent; upper part of the head dark chesnut, divided, laterally, by a line of pale dirty white; spot at each nostril yellow ochre; line over the eye inclining to ash; chin white; streak from the lower mandible, slit of the mouth, and posterior angle of the eye, dark chesnut; breast and sides under the wings thickly marked with long pointed spots of dark chesnut, centered with black, and running in chains; belly white; vent yellow ochre, streaked with brown; back streaked with black, bay, and pale ochre; tail brown, rounded at the end, the two middle feathers streaked down their centres with black; legs flesh colored; wing coverts black, broadly edged with bay, and tipt with yellowish white; wings dark brown. The female is scarcely distinguishable by its plumage from the male. The bill in both horn colored.

CHIPPING SPARROW.

FRINGILLA SOCIALIS.

[Plate XVI.—Fig. 5.]

Passer domesticus, the little House Sparrow, or Chipping-bird, BARTRAM, p. 291.—PEALE'S Museum, No. 6571.

THIS species, tho destitute of the musical talents of the former, is perhaps more generally known, because more familiar and even domestic. He inhabits, during summer, the city, in common with man, building in the branches of the trees with which our streets and gardens are ornamented; and gleaning up crumbs from our yards, and even our doors, to feed his more advanced young with. I have known one of these birds attend regularly every day, during a whole summer, while the family were at dinner, under a piazza, fronting the garden, and pick up the crumbs that were thrown to him. This sociable habit, which continues chiefly during the summer, is a singular characteristic. Towards the end of summer he takes to the fields, and hedges, until the weather becomes severe, with snow, when he departs for the south.

The Chipping-bird builds his nest most commonly in a cedar bush, and lines it thickly with cow hair. The female lays four or five eggs of a light blue color, with a few dots of purplish black near the great end.

This species may easily be distinguished from the four preceding ones, by his *black bill and frontlet*, and by his familiarity in summer; yet in the month of August and September, when they moult their feathers, the black on the front and partially on the bill disappears. The young are also without the black during the first season.

The Chipping Sparrow is five inches and a quarter long, and eight inches in extent; frontlet black; chin and line over the eye whitish; crown chesnut; breast and sides of the neck pale ash; bill in winter black, in summer the lower mandible flesh colored; rump dark ash; belly and vent white; back variegated with black and bright bay; wings black, broadly edged with bright chesnut; tail dusky, forked, and slightly edged with pale ochre; legs and feet a pale flesh color. The female differs in having less black on the frontlet, and the bay duller. Both lose the black front in moulting.

SNOW-BIRD.

FRINGILLA NIVALIS.

[Plate XVI.—Fig. 6.]

Fringilla Hudsonia, TURTON, *Syst.* I, 568.—*Emberiza hyemalis*, *Id.* 531.—LATH. I, 66.—
 CATESBY, I, 36.—*Arct. Zool.* p. 359, No. 223.—*Passer nivalis*, BARTRAM, p. 291.—
 PEALE'S *Museum*, No. 6532.

THIS well known species, small and insignificant as it may appear, is by far the most numerous, as well as the most extensively disseminated, of all the feathered tribes that visit us from the frozen regions of the north. Their migrations extending from the arctic circle, and probably beyond it, to the shores of the gulf of Mexico, spreading over the whole breadth of the United States from the Atlantic ocean to Louisiana; how much farther westward I am unable to say. About the twentieth of October they make their first appearance in those parts of Pennsylvania east of the Alleghany mountains. At first they are most generally seen on the borders of woods among the falling and decayed leaves, in loose flocks of thirty or forty together, always taking to the trees when disturbed. As the weather sets in colder they approach nearer the farm-house and villages; and on the appearance of what is usually called *falling weather*, assemble in larger flocks, and seem doubly diligent in searching for food. This increased activity is generally a sure prognostic of a storm. When deep snow covers the ground they become almost half domesticated. They collect about the barn, stables, and other outhouses, spread over the yard, and even round the steps of the door; not only in the country and villages, but in the heart of our large cities; crowding around the threshold early in the morning, gleaning up the crumbs; appearing very

lively and familiar. They have also recourse, at this severe season, when the face of the earth is shut up from them, to the seeds of many kinds of weeds that still rise above the snow, in corners of fields, and low sheltered situations along the borders of creeks and fences, where they associate with several species of Sparrows, particularly those represented on the same plate. They are at this time easily caught with almost any kind of trap; are generally fat, and, it is said, are excellent eating.

I cannot but consider this bird as the most numerous of its tribe of any within the United States. From the northern parts of the district of Maine, to the Ogechee river in Georgia, a distance by the circuitous route in which I travelled of more than 1800 miles, I never passed a day, and scarcely a mile, without seeing numbers of these birds, and frequently large flocks of several thousands. Other travellers with whom I conversed, who had come from Lexington in Kentucky, thro Virginia, also declared that they found these birds numerous along the whole road. It should be observed, that the road sides are their favorite haunts, where many rank weeds that grow along the fences furnish them with food, and the road with gravel. In the vicinity of places where they were most numerous I observed the small Hawk, represented in the same plate, and several others of his tribe, watching their opportunity, or hovering cautiously around, making an occasional sweep among them, and retiring to the bare branches of an old cypress to feed on their victim. In the month of April, when the weather begins to be warm, they are observed to retreat to the woods; and to prefer the shaded sides of hills and thickets; at which time the males warble out a few very low sweet notes; and are almost perpetually pursuing and fighting with each other. About the twentieth of April they take their leave of our humble regions, and retire to the north, and to the high ranges of the Alleghany to build their nests, and rear their young. In some of those ranges, in the interior of Virginia, and northward about the waters of the west

branch of the Susquehanna, they breed in great numbers. The nest is fixed in the ground or among the grass, sometimes several being within a small distance of each other. According to the observations of the gentlemen residing at Hudson bay factory, they arrive there about the beginning of June, stay a week or two, and proceed farther north to breed. They return to that settlement in the autumn on their way to the south.

In some parts of New England I found the opinion pretty general, that the Snow-bird in summer is transformed into the small Chipping Sparrow, which we find so common in that season, and which is represented in the same plate. I had convinced a gentleman of New York of his mistake in this matter, by taking him to the house of a Mr. Gautier, there, who amuses himself by keeping a great number of native as well as foreign birds. This was in the month of July, and the Snow-bird appeared there in the same colored plumage he usually has. Several individuals of the Chipping Sparrow were also in the same apartment. The evidence was therefore irresistible; but as I had not the same proofs to offer to the eye in New England, I had not the same success.

There must be something in the temperature of the blood or constitution of this bird which unfits it for residing, during summer, in the lower parts of the United States; as the country here abounds with a great variety of food of which, during its stay here, it appears to be remarkably fond. Or perhaps its habit of associating in such numbers to breed, and building its nest with so little precaution, may, to ensure its safety, require a solitary region, far from the intruding footsteps of man.

The Snow-bird is six inches long, and nine in extent; the head, neck, and upper parts of the breast, body and wings, are of a deep slate color; the plumage sometimes skirted with brown, which is the color of the young birds; the lower parts of the breast, the whole belly and vent, are pure white; the three secondary quill feathers next the body are edged with brown, the primaries with

white; the tail is dusky slate, a little forked, the two exterior feathers wholly white, which are flirled out as it flies, and appear then very prominent; the bill and legs are of a reddish flesh color; the eye bluish black. The female differs from the male in being considerably more brown. In the depth of winter the slate color of the male becomes more deep and much purer, the brown disappearing nearly altogether.



Drawn from Nature by A. Wilson.

Engraved by J. Lawson.

1. American Liskin. 2 Rose-breasted Grosbeak
3 Green black-throated Warbler. 4 Yellow-rump W. 5 Cerulean W. 6 Solitary Flycatcher.

PINE FINCH.

FRINGILLA PINUS.

[Plate XVII.—Fig. 1.]

PEALE'S *Museum*, No. 6577.

THIS little northern stranger visits us in the month of November, and seeks the seeds of the black alder, on the borders of swamps, creeks and rivulets. As the weather becomes more severe, and the seeds of the *Pinus canadensis* are fully ripe, these birds collect in larger flocks, and take up their residence, almost exclusively, among these trees. In the gardens of Bush-hill, in the neighbourhood of Philadelphia, a flock of two or three hundred of these birds have regularly wintered many years; where a noble avenue of pine trees, and walks covered with fine white gravel, furnish them with abundance thro the winter. Early in March they disappear, either to the north, or to the pine woods that cover many lesser ranges of the Alleghany. While here they are often so tame as to allow you to walk within a few yards of the spot where a whole flock of them are sitting. They flutter among the branches, frequently hanging by the cones, and uttering a note almost exactly like that of the Goldfinch (*F. tristis*.) I have not a doubt but this bird appears in a richer dress in summer in those places where he breeds, as he has so very great a resemblance to the bird above mentioned, with whose changes we are well acquainted.

The length of this species is four inches, breadth eight inches; upper part of the head, the neck and back a dark flaxen color, streaked with black; wings black, marked with two rows of dull

white or cream color; whole wing quills, under the coverts, rich yellow, appearing even when the wings are shut; rump and tail coverts yellowish, streaked with dark brown; tail feathers rich yellow from the roots half way to the tips, except the two middle ones which are blackish brown, slightly edged with yellow; sides under the wings of a cream color, with long streaks of black; breast a light flaxen color, with small streaks or pointed spots of black; legs purplish brown; bill a dull horn color; eyes hazel. The female was scarcely distinguishable by its plumage from the male. The New York Siskin of Pennant,* appears to be only the Yellow-bird (*Fringilla tristis*) in his winter dress.

This bird has a still greater resemblance to the Siskin of Europe (*F. spinus*), and may perhaps be the species described by Turton,† as the Black Mexican Siskin, which he says is varied above with black and yellowish, and is white beneath, and which is also said to sing finely. This change from flaxen to yellow is observable in the Goldfinch; and no other two birds of our country resemble each other more than these do in their winter dresses. Should these surmises be found correct, a figure of this bird in his summer dress shall appear in some future part of our work.

* Arct. Zool. p. 372, No. 243.

† Turton, vol. I, p. 560.

ROSE-BREASTED GROSBEAK.

LOXIA ROSEA.

[Plate XVII.—Fig. 2.]

Loxia Ludoviciana, TURTON'S *Syst.*—*Red-breasted Grosbeak*, *Arct. Zool.* p. 350, No. 212.
 —*Red-breasted Finch*, *Id.* 372, No. 245.—*Le Rose gorge*, BUFF. III, 460.—*Gros-bec de la Louisiana*, *Pl. enl.* 153, fig. 2.—LATH. II, 126.—*Peale's Museum*, No. 5806, male—5807, female—5806 *A*, male of one year old.

THIS elegant species is rarely found in the lower parts of Pennsylvania; in the state of New York, and those of New England, it is more frequently observed; particularly in Fall when the berries of the sour gum are ripe, on the kernels of which it eagerly feeds. Some of its trivial names would import, that it is also an inhabitant of Louisiana; but I have not heard of its being seen in any of the southern states. A gentleman of Middleton, Connecticut, informed me, that he kept one of these birds for some considerable time in a cage, and observed that it frequently sung at night, and all night; that its notes were extremely clear and mellow, and the sweetest of any bird with which he is acquainted.

The bird from which the figure on the plate was taken, was shot, late in April, on the borders of a swamp, a few miles from Philadelphia. Another male of the same species was killed at the same time, considerably different in its markings; a proof that they do not acquire their full colors until at least the second spring or summer.

The Rose-breasted Grosbeak is eight inches and a half long, and thirteen inches in extent; the whole upper parts are black except the second row of wing coverts, which are broadly tipped with white; a spot of the same extends over the primaries, immediately

below their coverts; chin, neck and upper part of the breast black; lower part of the breast, middle of the belly, and lining of the wings, a fine light carmine or rose-color; tail forked, black, the three exterior feathers, on each side, white on their inner vanes for an inch or more from the tips; bill, like those of its tribe, very thick and strong, and pure white; legs and feet light blue; eyes hazel. The young male of the first spring has the plumage of the back variegated with light brown, white and black; a line of white extends over the eye; the rose color also reaches to the base of the bill where it is speckled with black and white. The female is of a light yellowish flaxen color, streaked with dark olive and whitish; the breast is streaked with olive, pale flaxen, and white; the lining of the wings is pale yellow; the bill more dusky than in the male, and the white on the wing less.

BLACK-THROATED GREEN WARBLER.

SYLVIA VIRENS.

[Plate XVII.—Fig. 3.]

Motacilla virens, GMEL. *Syst.* I, p. 985.—*Le Figuier à cravate noire*, BUFF. V, p. 298.—*Black-throated Green Flycatcher*, EDW. t. 300.—*Green Warbler*, *Arct. Zool.* II, No. 297.—LATH. *Syn.* IV, p. 484, 108.—TURTON *Syst.* p. 607.—*Parus viridis gutture nigro*, the *Green Black-throated Flycatcher*, BARTRAM, p. 292.

THIS is one of those transient visitors that pass thro Pennsylvania, in the latter part of April and beginning of May, on their way to the north to breed. It generally frequents the high branches and tops of trees, in the woods, in search of the larvæ of insects that prey on the opening buds. It has a few singular chirruping notes; and is very lively and active. About the tenth of May it disappears. It is rarely observed on its return in the Fall, which may probably be owing to the scarcity of its proper food at that season obliging it to pass with greater haste; or to the foliage, which prevents it and other passengers from being so easily observed. Some few of these birds, however, remain all summer in Pennsylvania, having myself shot three this season, in the month of June; but I have never yet seen their nest.

This species is four inches and three quarters long, and seven broad; the whole back, crown and hind head is of a rich yellowish green; front, cheeks, sides of the breast, and line over the eye, yellow; chin and throat black; sides under the wings spotted with black; belly and vent white; wings dusky black, marked with two white bars; bill black; legs and feet brownish yellow; tail dusky, edged with light ash; the three exterior feathers spotted on their inner webs with white. The female is distinguished by having no black on the throat.

YELLOW-RUMP WARBLER.

SYLVIA CORONATA.

[Plate XVII.—Fig. 4.]

Motacilla maculosa, GMEL. *Syst.* I, p. 984.—*Motacilla coronata*, LINN. *Syst.* I, p. 332, No. 31.—*Le Figuier à tête cendrée*, BUFF. V, p. 291.—*Le Figuier couronné d'or*, *Id.* V, p. 312.—*Yellow-rump Flycatcher*, EDW. t. 255.—*Golden-crowned Flycatcher*, *Id.* t. 298.—*Yellow-rump Warbler*, ARCT. Zool. II, No. 288.—*Golden-crowned Warbler*, *Id.* II, No. 294.—LATH. *Syn.* IV, p. 481, No. 104. *Id.* *Supp.* p. 182. *Id.* *Syn.* IV, p. 486, No. 11.—TURTON, p. 599. *Id.* 606.—*Parus cedrus uropygio flavo*, the *Yellow Rump*, BARTRAM, p. 292.—*Parus aurio vertice*, the *Golden-crown Flycatcher*, *Id.* 292.—PEALE'S *Museum*, No. 7134.

IN this beautiful little species we have another instance of the mistakes occasioned by the change of color to which many of our birds are subject. In the present case this change is both progressive and periodical. The young birds of the first season are of a brown olive above, which continues until the month of February and March; about which time it gradually changes into a fine slate color, as in the figure on the plate. About the middle of April this change is completed. I have shot them in all their gradations of change. While in their brown olive dress, the yellow on the sides of the breast and crown is scarcely observable, unless the feathers be parted with the hand; but that on the rump is still vivid; the spots of black on the cheek are then also obscured. The difference of appearance, however, is so great, that we need scarcely wonder that foreigners, who have no opportunity of examining the progress of these variations, should have concluded them to be two distinct species; and designated them as in the above synonyms.

This bird is also a passenger thro Pennsylvania. Early in October he arrives from the north, in his olive dress, and frequents the cedar trees, devouring the berries with great avidity. He re-

mains with us three or four weeks, and is very numerous wherever there are trees of the red cedar covered with berries. He leaves us for the south, and spends the winter season among the myrtle swamps of Virginia, the Carolinas and Georgia. The berries of the *Myrica cerifera*, both the large and dwarf kind, are his particular favorites. On those of the latter I found him feeding, in great numbers, near the sea shore, in the district of Maine, in October; and thro the whole of the lower parts of the Carolinas, wherever the myrtles grew, these birds were numerous, skipping about with hanging wings, among the bushes. In those parts of the country they are generally known by the name of Myrtle-birds. Round Savannah, and beyond it as far as the Alatamaha, I found him equally numerous, as late as the middle of March, when his change of color had considerably progressed to the slate hue. Mr. Abbot, who is well acquainted with this change, assured me, that they attain this rich slate color fully before their departure from thence, which is about the last of March, and to the tenth of April. About the middle or twentieth of the same month they appear in Pennsylvania, in full dress, as represented in the plate; and after continuing to be seen, for a week or ten days, skipping among the high branches and tops of the trees, after those larvæ that feed on the opening buds, they disappear until the next October. Whether they retire to the north, or to the high ranges of our mountains to breed, like many other of our passengers, is yet uncertain. They are a very numerous species, and always associate together in considerable numbers, both in spring, winter and Fall.

This species is five inches and a half long, and eight inches broad; whole back, tail coverts, and hind head, a fine slate color, streaked with black; crown, sides of the breast, and rump, rich yellow; wings and tail black, the former crossed with two bars of white, the three exterior feathers of the latter spotted with white; cheeks and front black; chin, line over and under the eye, white; breast light slate, streaked with black extending under the wings;

belly and vent white, the latter spotted with black; bill and legs black. This is the spring and summer dress of the male; that of the female of the same seasons differs but little, chiefly in the colors being less vivid and not so strongly marked with a tincture of brownish on the back.

In the month of October the slate color has changed to a brownish olive, the streaks of black are also considerably brown; and the white is stained with the same color; the tail coverts, however, still retain their slaty hue, the yellow on the crown, and sides of the breast becomes nearly obliterated. Their only note is a kind of *chip*, occasionally repeated. Their motions are quick, and one can scarcely ever observe them at rest.

Tho the form of the bill of this bird obliges me to arrange him with the Warblers; yet in his food and all his motions he is decisively a Flycatcher.

On again recurring to the descriptions in Pennant of the "Yellow-rump Warbler,"* "Golden-crowned W."† and "Belted W."‡ I am persuaded that the whole three have been drawn from the present species.

* Arct. Zool. p. 400, No. 188.

† Ib. No. 294.

‡ Ib. No. 306.

CÆRULEAN WARBLER.

SYLVIA CERULEA.

[Plate XVII.—Fig. 5.]

PEALE'S *Museum*, No. 7309.

THIS delicate little species is now, for the first time, introduced to public notice. Except my friend Mr. Peale, I know of no other naturalist who seems to have hitherto known of its existence. At what time it arrives from the south I cannot positively say, as I never met with it in spring; but have several times found it during summer. On the borders of streams and marshes, among the branches of the poplar, it is sometimes to be found. It has many of the habits of the Flycatcher; tho, like the preceding, from the formation of its bill we must arrange it with the Warblers. It is one of our scarce birds in Pennsylvania; and its nest has hitherto eluded my search. I have never observed it after the twentieth of August, and therefore suppose it retires early to the south.

This bird is four inches and a half long, and seven and a half broad; the front and upper part of the head is a fine verditer blue; the hind head and back of the same color, but not quite so brilliant; a few lateral streaks of black mark the upper part of the back; wings and tail black, edged with sky blue; the three secondaries next the body edged with white, and the first and second row of coverts also tipt with white; tail coverts large, black, and broadly tipt with blue; lesser wing coverts black, also broadly tipt with blue, so as to appear nearly wholly of that tint; sides of the breast spotted or streaked with blue; belly, chin and throat pure white; the tail is forked, the five lateral feathers on each side with

each a spot of white, the two middle more slightly marked with the same; from the eye backwards extends a line of dusky blue; before and behind the eye a line of white; bill dusky above, light blue below; legs and feet light blue.

SOLITARY FLYCATCHER.

MUSCICAPA SOLITARIA.

[Plate XVII.—Fig. 6.]

THIS rare species I can find no where described. I have myself never seen more than three of them; all of whom corresponded in their markings; and on dissection were found to be males. It is a silent solitary bird. It is also occasionally found in the state of Georgia, where I saw a drawing of it in the possession of Mr. Abbot, who considered it a very scarce species. He could give me no information of the female. The one from which the figure in the plate was taken, was shot in Mr. Bartram's woods, near Philadelphia, among the branches of dogwood, in the month of October. It appears to belong to a particular family, or subdivision of the *Muscicapa* genus, among which are the White-eyed, the Yellow-throated, and several others already described in the present work. Why one species should be so rare, while another, much resembling it, is so numerous, at least a thousand for one, is a question I am unable to answer; unless by supposing the few we meet with here to be accidental stragglers from the great body, which may have their residence in some other parts of our extensive continent.

The Solitary Flycatcher is five inches long, and eight inches in breadth; cheeks, and upper part of the head and neck, a fine bluish grey; breast pale cinereous; flanks and sides of the breast yellow; whole back and tail coverts green olive; wings nearly black; the first and second row of coverts tipped with white; the three secondaries next the body edged with pale yellowish white; the rest of the quills bordered with light green; tail slightly fork-

ed, of the same tint as the wings, and edged with light green; from the nostrils a line of white proceeds to and encircles the eye; lores black; belly and vent white; upper mandible black; lower light blue; legs and feet light blue; eyes hazel.



Drawn from Nature by J. Wilson.

Engraved by A. Lawson.

1 Cow Bunting. 2 Female. 3 Young. 4 Maryland Yellowthroat. 5 Blue grey Flycatcher. 6 White-eyed V.

COW BUNTING.*

EMBERIZA PECORIS.

[Plate XVIII.—Figs. 1, 2, & 3.]

Le Brunet, BUFF. IV, 138.—*Le Pinçon de Virginie*, BRISS. III, 165.—*Cowpen-bird*, CATESB. I, 34.—LATH. II, 269.—*Arct. Zool.* p. 371, No. 241.—*Sturnus stercorarius*, BARTRAM, p. 291.—PEALE'S *Museum*, No. 6378, male—6379, female.

THERE is one striking peculiarity in the works of the great Creator, which becomes more amazing the more we reflect on it; namely, that he has formed no species of animals so minute, or obscure, that are not invested with certain powers and peculiarities, both of outward conformation and internal faculties, exactly suited to their pursuits, sufficient to distinguish them from all others; and forming for them a character solely and exclusively their own. This is particularly so among the feathered race. If there be any case where these characteristic features are not evident, it is owing to our want of observation; to our little intercourse with that particular tribe; or to that contempt for inferior animals and all their habitudes which is but too general, and which bespeaks a morose unfeeling and unreflecting mind. These peculiarities are often surprising, always instructive where understood, and (as in the subject of our present chapter) at least amusing, and worthy of being farther investigated.

The most remarkable trait in the character of this species is the unaccountable practice it has of dropping its eggs into the nests of other birds, instead of building and hatching for itself; and thus

* The American Cuckoo (*Cuculus Carolinensis*) is by many people called the Cow-bird, from the sound of its notes resembling the words *cow, cow*. This bird builds its own nest very artlessly in a cedar or an apple tree, and lays four greenish blue eggs, which it hatches, and rears its young with great tenderness.

entirely abandoning its progeny to the care and mercy of strangers. More than two thousand years ago it was well known, in those countries where the bird inhabits, that the Cuckoo of Europe (*Cuculus canorus*) never built herself a nest, but dropped her eggs in the nests of other birds; but among the thousands of different species that spread over that and other parts of the globe, no other instance of the same uniform habit has been found to exist, until discovered in the bird now before us. Of the reality of the former there is no doubt; it is known to every schoolboy in Britain; of the truth of the latter I can myself speak with confidence, from personal observation, and from the testimony of gentlemen, unknown to each other, residing in different and distant parts of the United States. The circumstances by which I became first acquainted with this peculiar habit of the bird are as follow.

I had, in numerous instances, found in the nests of three or four particular species of birds, one egg, much larger and differently marked from those beside it; I had remarked that these odd looking eggs were all of the same colour, and marked nearly in the same manner, in whatever nest they lay; tho frequently the eggs beside them were of a quite different tint; and I had also been told, in a vague way, that the Cow-bird laid in other birds' nests. At length I detected the female of this very bird in the nest of the Red-eyed Flycatcher, which nest is very small, and very singularly constructed; suspecting her purpose I cautiously withdrew without disturbing her; and had the satisfaction to find, on my return, that the egg which she had just dropt corresponded as nearly as eggs of the same species usually do, in its size, tint and markings to those formerly taken notice of. Since that time I have found the young Cow Bunting, in many instances, in the nests of one or other of these small birds; I have seen these last followed by the young Cow-bird calling out clamorously for food, and often engaged in feeding it; and I have now, in a cage before me, a very fine one which six months ago I took from the nest of the Maryland Yel-

low-throat, and from which the figures of the young bird, and male Cow-bird in the plate were taken; the figure in the act of feeding it is the female Maryland Yellow-throat, in whose nest it was found. I claim, however, no merit for a discovery not originally my own, these singular habits having long been known to people of observation resident in the country, whose information, in this case, has preceded that of all our school philosophers and closet naturalists; to whom the matter has till now been totally unknown.

About the twenty-fifth of March, or early in April, the Cow-pen-bird makes his first appearance in Pennsylvania from the south, sometimes in company with the Red-winged Blackbird, more frequently in detached parties, resting early in the morning, an hour at a time, on the tops of trees near streams of water, appearing solitary silent and fatigued. They continue to be occasionally seen, in small solitary parties, particularly along creeks and banks of rivers, so late as the middle of June; after which we see no more of them until about the beginning or middle of October, when they re-appear in much larger flocks, generally accompanied by numbers of the Red-wings; between whom and the present species there is a considerable similarity of manners, dialect, and personal resemblance. In these aerial voyages, like other experienced navigators they take advantage of the direction of the wind; and always set out with a favourable gale. My venerable and observing friend, Mr. Bartram, writes me on the thirteenth of October as follows.—“The day before yesterday, at the height of the north-east storm, prodigious numbers of the Cow-pen birds came by us, in several flights of some thousands in a flock; many of them settled on trees in the garden to rest themselves; and then resumed their voyage southward. There were a few of their *cousins*, the Red-wings, with them. We shot three, a male and two females.”

From the early period at which these birds pass in the spring, it is highly probable that their migrations extend very far north.

Those which pass in the months of March and April can have no opportunity of depositing their eggs here, there being not more than one or two of our small birds which build so early. Those that pass in May and June, are frequently observed loitering singly about solitary thickets, reconnoitring, no doubt, for proper nurses, to whose care they may commit the hatching of their eggs, and the rearing of their helpless orphans. Among the birds selected for this duty are the following, all of which are figured and described in this and the preceding volume:—the Blue-bird, which builds in a hollow tree; the Chipping Sparrow, in a cedar bush; the Golden-crowned Thrush, on the ground, in the shape of an oven; the Red-eyed Flycatcher, a neat pensile nest, hung by the two upper edges on a small sapling, or drooping branch; the Yellow-bird in the fork of an alder; the Maryland Yellow-throat on the ground at the roots of briar bushes; the White-eyed Flycatcher, a pensile nest on the bending of a smilax vine; and the small Blue Grey Flycatcher, also a pensile nest, fastened to the slender twigs of a tree, sometimes at the height of fifty or sixty feet from the ground. The three last mentioned nurses are represented on the same plate with the bird now under consideration. There are no doubt, others to whom the same charge is committed; but all these I have myself met with acting in that capacity.

Among these the Yellow-throat, and the Red-eyed Flycatcher, appear to be particular favorites; and the kindness and affectionate attention which these two little birds seem to pay to their nurslings, fully justify the partiality of the parents.

It is well known to those who have paid attention to the manners of birds, that after their nest is fully finished, a day or two generally elapses before the female begins to lay. This delay is in most cases necessary to give firmness to the yet damp materials and allow them time to dry. In this state it is sometimes met with, and laid in by the Cow Bunting; the result of which I have invariably found to be the desertion of the nest by its rightful

owner, and the consequent loss of the egg thus dropped in it by the intruder. But when the owner herself has begun to lay, and there are one or more eggs in the nest before the Cow Bunting deposits hers, the attachment of the proprietor is secured, and remains unshaken until incubation is fully performed, and the little stranger is able to provide for itself.

The well known practice of the young Cuckoo of Europe in turning out all the eggs and young which it feels around it, almost as soon as it is hatched, has been detailed in a very satisfactory and amusing manner, by the amiable Dr. Jenner,* who has since risen to immortal celebrity, in a much nobler pursuit; and to whose genius and humanity the whole human race are under everlasting obligations. In our Cow Bunting, tho no such habit has been observed; yet still there is something mysterious in the disappearance of the nurse's own eggs soon after the foundling is hatched, which happens regularly before all the rest. From twelve to fourteen days is the usual time of incubation with our small birds; but altho I cannot exactly fix the precise period requisite for the egg of the Cow Bunting, I think I can say almost positively, that it is a day or two less than the shortest of the above mentioned spaces! In this singular circumstance we see a striking provision of the Deity; for did this egg require a day or two more instead of so much less than those among which it has been dropped, the young it contained would in every instance most inevitably perish; and thus in a few years the whole species must become extinct. On the first appearance of the young Cow Bunting, the parent being frequently obliged to leave the nest to provide sustenance for the foundling, the business of incubation is thus necessarily interrupted; the disposition to continue it abates; nature has now given a new direction to the zeal of the parent, and the remaining eggs, within a day or two at most, generally disappear. In some instances, indeed,

* See Philosophical Transactions for 1788, Part II.

they have been found on the ground near, or below, the nest; but this is rarely the case.

I have never known more than one egg of the Cow Bunting dropped in the same nest. This egg is somewhat larger than that of the Blue-bird, thickly sprinkled with grains of pale brown on a dirty white ground. It is of a size proportionable to that of the bird.

So extraordinary and unaccountable is this habit, that I have sometimes thought it might not be general among the whole of this species in every situation; that the extreme heat of our summers, tho suitable enough for their young, might be too much for the comfortable residence of the parents; that, therefore, in their way to the north, thro our climate, they were induced to secure suitable places for their progeny; and that in the regions where they more generally pass the summer, they might perhaps build nests for themselves, and rear their own young like every other species around them. On the other hand, when I consider that many of them tarry here so late as the middle of June, dropping their eggs, from time to time, into every convenient receptacle; that in the states of Virginia, Maryland, Delaware, New Jersey and Pennsylvania, they uniformly retain the same habits; and, in short, that in all these places I have never yet seen or heard of their nest;—reasoning from these facts, I think I may safely conclude, that they never build one; and that in those remote northern regions their manners are the same as we find them here.

What reason Nature may have for this extraordinary deviation from her general practice, is, I confess, altogether beyond my comprehension. There is nothing singular to be observed in the anatomical structure of the bird that would seem to prevent or render it incapable of incubation. The extreme heat of our climate is probably one reason why in the months of July and August they are rarely to be seen here. Yet we have many other migratory birds that regularly pass thro Pennsylvania to the north, leaving

a few residents behind them; who, without exception, build their own nests and rear their own young. This part of the country also abounds with suitable food, such as they usually subsist on. Many conjectures indeed might be formed as to the probable cause; but all of them, that have occurred to me, are unsatisfactory and inconsistent. Future, and more numerous observations, made with care, particularly in those countries where they most usually pass the summer, may throw more light on this matter; till then we can only rest satisfied with the reality of the fact.

This species winters regularly in the lower parts of North and South Carolina and Georgia; I have also met with them near Williamsburg, and in several other parts of Virginia. In January, 1809, I observed strings of them for sale in the market of Charleston, South Carolina. They often frequent corn and rice-fields in company with their cousins, as Mr. Bartram calls them, the Red-winged Blackbirds; but are more commonly found accompanying the cattle, feeding on the seeds, worms, &c. which they pick up amongst the fodder and from the excrements of the cattle, which they scratch up for this purpose. Hence they have pretty generally obtained the name of *Cow-pen birds*, *Cow-birds*, or *Cow Blackbirds*. By the naturalists of Europe they have hitherto been classed with the Finches; tho improperly, as they have no family resemblance to that tribe sufficient to justify that arrangement. If we are to be directed by the conformation of their bill, nostrils, tongue, and claws, we cannot hesitate a moment in classing them with the Red-winged Blackbirds, *Oriolus Phoeniceus*; not however as *Orioles*, but as *Buntings*, or some new intermediate genus; the notes or dialect of the Cow Bunting and those of the Red-wings, as well as some other peculiarities of voice and gesticulation, being strikingly similar.

Respecting this extraordinary bird I have received communications from various quarters, all corroborative of the foregoing

particulars. Among these is a letter from Dr. Potter of Baltimore, which, as it contains some new and interesting facts, and several amusing incidents, illustrative of the character of the bird, I shall with pleasure lay before the reader, apologizing to the obliging writer for a few unimportant omissions which have been anticipated in the preceding pages.

“ I regret exceedingly that professional avocations have put
“ it out of my power to have replied earlier to your favor of the
“ nineteenth of September; and altho I shall not now reflect all
“ the light you desire, a faithful transcript from memoranda noted
“ at the moment of observation, may not be altogether uninteresting.
“ resting.

“ The *Fringilla pecoris*, is generally known in Maryland by
“ the name of the Cow Blackbird; and none but the naturalist
“ view it as a distinct species. It appears about the last of March,
“ or first week in April; tho sometimes a little earlier when the
“ spring is unusually forward. It is less punctual in its appearance
“ than many other of our migratory birds.

“ It commonly remains with us till about the last of October;
“ tho unusually cold weather sometimes banishes it much earlier.
“ It however sometimes happens that a few of them remain with us
“ all winter, and are seen hovering about our barns and farm-yards
“ when straitened for sustenance by snow or hard frost. It is remarkable that in some years I have not been able to discover
“ one of them during the months of July and August; when they
“ have suddenly appeared in September in great numbers. I have
“ noticed this fact always immediately after a series of very hot
“ weather, and then only. The general opinion is that they then
“ retire to the deep recesses of the shady forest; but if this had
“ been the fact, I should probably have discovered them in my
“ rambles in every part of the woods. I think it more likely that
“ they migrate further north till they find a temperature more con-

“ genial to their feelings, or find a richer repast in following the
 “ cattle in a better pasture.*

“ In autumn we often find them congregated with the marsh
 “ Blackbirds, committing their common depredations upon the ears
 “ of the Indian corn; and at other seasons the similarity of their
 “ pursuits in feeding introduces them into the same company. I
 “ could never observe that they would keep the company of any
 “ other bird.

“ The Cow-pen finch differs moreover in another respect from
 “ all the birds with which I am acquainted. After an observance
 “ of many years I could never discover any thing like *pairing* or a
 “ mutual attachment between the sexes. Even in the season of
 “ love, when other birds are separated into pairs, and occupied in
 “ the endearing office of providing a receptacle for their offspring,
 “ the Fringillæ are seen feeding in odd as well as even numbers,
 “ from one to twenty, and discovering no more disposition towards
 “ perpetuating their species than birds of any other species at
 “ other seasons, excepting a promiscuous concubinage which per-
 “ vades the whole tribe. When the female separates from the com-
 “ pany, her departure is not noticed; no gallant partner accompa-
 “ nies her, nor manifests any solicitude in her absence; nor is her
 “ return greeted by that gratulatory tenderness that so eminently
 “ characterizes the males of other birds. The male proffers the
 “ same civilities to any female indiscriminately, and they are reci-

* “ It may not be improper to remark here, that the appearance of this bird in spring is
 “ sometimes looked for with anxiety by the farmers. If the horned cattle happen to be dis-
 “ eased in spring they ascribe it to worms, and consider the pursuit of the birds as an uner-
 “ ring indication of the necessity of medicine. Altho this hypothesis of the worms infesting
 “ the cattle so as to produce much disease is problematical, their superabundance at this sea-
 “ son cannot be denied. The larvæ of several species are deposited in the vegetables when
 “ green, and the cattle are fed on them as fodder in winter. This furnishes the principal in-
 “ ducement for the bird to follow the cattle in spring, when the aperient effects of the green
 “ grasses evacuates great numbers of worms. At this season the Pecoris often stuffs its crop
 “ with them till it can contain no more. There are several species, but the most numerous
 “ is a small white one similar to, if not the same, as the ascaris of the human species.

“ procated accordingly, without exciting either resentment or jealousy in any of the party. This want of sexual attachment is not inconsistent with the general economy of this singular bird; for as they are neither their own architect, nor nurse of their own young, the degree of attachment that governs others would be superfluous.

“ That the *Fringilla* never builds a nest for itself you may assert without the hazard of a refutation. I once offered a premium for the nest, and the negroes in the neighbourhood brought me a variety of nests, but they were always traced to some other bird. The time of depositing their eggs is from the middle of April to the last of May, or nearly so; corresponding with the season of laying observed by the small birds on whose property it encroaches. It never deposits but one egg in the same nest, and this is generally after the rightful tenant begins to deposit hers, but never I believe after she has commenced the process of incubation. It is impossible to say how many they lay in a season, unless they could be watched when confined in an aviary.

“ By a minute attention to a number of these birds when they feed in a particular field in the laying season, the deportment of the female, when the time of laying draws near, becomes particularly interesting. She deserts her associates, assumes a drooping sickly aspect, and perches upon some eminence where she can reconnoitre the operations of other birds in the process of nidification. If a discovery suitable to her purpose cannot be made from her stand, she becomes more restless, and is seen flitting from tree to tree till a place of deposit can be found. I once had an opportunity of witnessing a scene of this sort which I cannot forbear to relate. Seeing a female prying into a bunch of bushes in search of a nest, I determined to see the result, if practicable; and knowing how easily they are disconcerted by the near approach of man, I mounted my horse, and proceeded slowly, sometimes seeing and sometimes losing sight of her, till

“ I had travelled nearly two miles along the margin of a creek.
“ She entered every thick place, prying with the strictest scrutiny
“ into places where the small birds usually build, and at last darted
“ suddenly into a thick copse of alders and briars, where she re-
“ mained five or six minutes when she returned soaring above the
“ underwood, and returned to the company she had left feeding in
“ the field. Upon entering the covert I found the nest of a Yellow-
“ throat, with an egg of each. Knowing the precise time of de-
“ posit, I noted the spot and date with a view of determining a
“ question of importance, the time required to hatch the egg of the
“ Cow-bird, which I supposed to commence from the time of the
“ Yellow-throat’s laying the last egg. A few days after, the nest
“ was removed I knew not how, and I was disappointed. In the
“ progress of the Cow-bird along the creek’s side she entered the
“ thick boughs of a small cedar, and returned several times before
“ she could prevail on herself to quit the place; and upon exami-
“ nation I found a Sparrow sitting on its nest, on which she no
“ doubt would have stolen in the absence of the owner. It is I
“ believe certain, that the Cow-pen finch never makes a forcible
“ entry upon the premises by attacking other birds and ejecting
“ them from their rightful tenements, altho they are all perhaps
“ inferior in strength, except the Blue-bird, which, altho of a mild
“ as well as affectionate disposition, makes a vigorous resistance
“ when assaulted. Like most other tyrants and thieves they are
“ cowardly, and accomplish by stealth what they cannot obtain by
“ force.

“ The deportment of the Yellow-throat on this occasion is not
“ to be omitted. She returned while I waited near the spot, and
“ darted into her nest, but returned immediately and perched upon
“ a bough near the place, remained a minute or two and entered
“ it again, returned and disappeared. In ten minutes she returned
“ with the male. They chattered with great agitation for half an
“ hour seeming to participate in the affront and then left the place.

“ I believe all the birds thus intruded on manifest more or less concern at finding the egg of a stranger in their own nests. Among these the Sparrow is particularly punctilious; for she sometimes chirps her complaints for a day or two, and often deserts the premises altogether, even after she has deposited one or more eggs. The following anecdote will shew not only that the Cow-pen finch insinuates herself slyly into the nests of other birds, but that even the most pacific of them will resent the insult. A Blue-bird had built for three successive seasons in the cavity of a mulberry tree near my dwelling. One day when the nest was nearly finished, I discovered a female Cow-bird perched upon a fence stake near it, with her eyes apparently fixed upon the spot while the builder was busy in adjusting her nest. The moment she left it the intruder darted into it, and in five minutes returned and sailed off to her companions with seeming delight, which she expressed by her gestures and notes. The Blue-bird soon returned and entered the nest, but instantaneously fluttered back with much apparent hesitation, and perched upon the highest branch of the tree, uttering a rapidly repeated note of complaint and resentment, which soon brought the male, who reciprocated her feelings by every demonstration of the most vindictive resentment. They entered the nest together and returned several times, uttering their uninterrupted complaints for ten or fifteen minutes. The male then darted away to the neighbouring trees as if in quest of the offender, and fell upon a Cat-bird which he chastised severely, and then turned to an innocent Sparrow that was chanting its ditty in a peach tree. Notwithstanding the affront was so passionately resented, I found the Blue-bird had laid an egg the next day. Perhaps a tenant less attached to a favorite spot would have acted more fastidiously, by deserting the premises altogether. In this instance, also, I determined to watch the occurrences that were to follow, but on one of my morning visits I found the common enemy of the eggs and young of all

“ the small birds had despoiled the nest, a Coluber was found
“ coiled in the hollow, and the eggs sucked.

“ Agreeably to my observation, all the young birds destined
“ to cherish the young Cow-bird are of a mild and affectionate dis-
“ position; and it is not less remarkable, that they are all smaller
“ than the intruder; the Blue-bird is the only one nearly as large.
“ This is a good natured mild creature, altho it makes a vigorous
“ defence when assaulted. The Yellow-throat, the Sparrow, the
“ Goldfinch, the Indigo-bird, and the Blue-bird, are the only birds
“ in whose nests I have found the eggs or the young of the Cow-
“ pen finch, tho doubtless there are some others.

“ What becomes of the eggs or young of the proprietor? This
“ is the most interesting question that appertains to this subject.
“ There must be some special law of nature which determines that
“ the young of the proprietors are never to be found tenants in
“ common with the young Cow-bird. I shall offer the result of
“ my own experience on this point, and leave it to you and others
“ better versed in the mysteries of nature than I am to draw your
“ own conclusions. Whatever theory may be adopted the facts
“ must remain the same. Having discovered a Sparrow's nest
“ with five eggs, four and one, and the Sparrow sitting, I watched
“ the nest daily. The egg of the Cow-bird occupied the centre,
“ and those of the Sparrow were pushed a little up the sides of the
“ nest. Five days after the discovery I perceived the shell of the
“ Finch's egg broken, and the next the bird was hatched. The
“ Sparrow returned while I was near the nest, with her mouth full
“ of food with which she fed the young Cow-bird with every pos-
“ sible mark of affection, and discovered the usual concern at my
“ approach. On the succeeding day only two of the Sparrow's
“ eggs remained, and the next day there were none. I sought in
“ vain for them on the ground and in every direction.

“ Having found the eggs of the Cow-bird in the nest of a Yel-
“ low-throat, I repeated my observations. The process of incu-

“ bation had commenced, and on the seventh day from the disco-
“ very I found a young Cow-bird that had been hatched during my
“ absence of twenty-four hours, all the eggs of the proprietor re-
“ maining. I had not an opportunity of visiting the nest for three
“ days, and on my return there was only one egg remaining, and
“ that rotten. The Yellow-throat attended the young interloper
“ with the same apparent care and affection as if it had been its
“ own offspring.

“ The next year my first discovery was in a Blue-bird’s nest
“ built in an hollow stump. The nest contained six eggs, and the
“ process of incubation was going on. Three or four days after
“ my first visit I found a young Cow-bird, and three eggs remain-
“ ing. I took the eggs out; two contained young birds apparently
“ come to their full time, and the other was rotten. I found one
“ of the other eggs on the ground at the foot of the stump, differing
“ in no respect from those in the nest, no signs of life being dis-
“ coverable in either.

“ Soon after this I found a Goldfinch’s nest with one egg of
“ each only, and I attended it carefully till the usual complement
“ of the owner were laid. Being obliged to leave home, I could
“ not ascertain precisely when the process of incubation com-
“ menced; but from my reckoning, I think the egg of the Cow-
“ bird must have been hatched in nine or ten days from the com-
“ mencement of incubation. On my return I found the young Cow-
“ bird occupying nearly the whole nest, and the foster mother as
“ attentive to it as she could have been to her own. I ought to
“ acknowledge here, that in none of these instances could I ascer-
“ tain exactly the time required to hatch the Cow-bird’s eggs; and
“ that of course none of them are decisive; but is it not strange
“ that the egg of the intruder should be so uniformly the first
“ hatched? The idea of the egg being larger, and therefore from
“ its own gravity finding the center of the nest, is not sufficient to
“ explain the phenomenon; for in this situation the other eggs

“ would be proportionably elevated at the sides, and therefore re-
“ ceive as much or more warmth from the body of the incumbent
“ than the other.* This principle would scarcely apply to the eggs
“ of the Blue-bird, for they are nearly of the same size; if there be
“ any difference it would be in favor of the eggs of the builder of
“ the nest. How do the eggs get out of the nest? Is it by the size
“ and nestling of the young Cow-bird? This cannot always be the
“ case; because in the instance of the Blue-bird’s nest in the hollow
“ stump the cavity was a foot deep, the nest at the bottom, and the
“ ascent perpendicular; nevertheless the eggs were removed altho
“ filled with young ones; moreover, a young Cow-pen finch is as
“ helpless as any other young bird, and so far from having the
“ power of ejecting others from the nest, or even the eggs, that
“ they are sometimes found on the ground under the nest, espe-
“ cially when the nest happens to be very small. I will not assert
“ that the eggs of the builder of the nest are never hatched; but
“ I can assert that I have never been able to find one instance to
“ prove the affirmative. If all the eggs of both birds were to be
“ hatched, in some cases the nest would not hold half of them; for
“ instance, those of the Sparrow, or Yellow-bird. I will not assert
“ that the suppositious egg is brought to perfection in less time
“ than those of the bird to which the nest belongs; but from the
“ facts stated, I am inclined to adopt such an opinion. How are
“ the eggs removed after the accouchment of the spurious occu-
“ pant? By the proprietor of the nest unquestionably; for this is
“ consistent with the rest of her economy. After the power of
“ hatching them is taken away by her attention to the young
“ stranger, the eggs would be only an incumbrance, and there-
“ fore instinct prompts her to remove them. I might add, that I
“ have sometimes found the eggs of the Sparrow, in which were un-

* The ingenious writer seems not to be aware that almost all birds are in the habit, while sitting, of changing the eggs from the center to the circumference, and *vice versa*, that all of them may receive an equal share of warmth.

“matured young ones, lying near the nest containing a Cow-bird,
“and therefore I cannot resist this conclusion. Would the foster
“parent feed two species of young at the same time? I believe not.
“I have never seen an instance of any bird feeding the young of
“another, unless immediately after losing her own. I should
“think the sooty looking stranger would scarcely interest a mother
“while the cries of her own offspring, always intelligible, were to
“be heard. Should such a competition ever take place, I judge the
“stranger would be the sufferer, and probably the species soon be-
“come extinct. Why the *lex naturæ conservatrix* should decide
“in favor of the surreptitious progeny is not for me to determine.

“As to the vocal powers of this bird, I believe its pretensions
“are very humble, none of its notes deserving the epithet musical.
“The sort of simple cackling complaint it utters at being disturbed,
“constitutes also the expression of its pleasure at finding its compa-
“nions, varying only in a more rapidly repeated monotony. The
“deportment of the male, during his promiscuous intercourse with
“the other sex, resembles much that of a pigeon in the same situa-
“tion. He uses nearly the same gestures; and by attentively listen-
“ing you will hear a low, guttural sort of muttering, which is the
“most agreeable of his notes, and not unlike the cooing of a pigeon.
“This, Sir, is the amount of my information on this subject; and is
“no more than a transcript from my notes made several years ago.
“For ten years past since I have lived in this city, many of the im-
“pressions of nature have been effaced, and artificial ideas have
“occupied their places. The pleasure I formerly received in view-
“ing and examining the objects of nature are however not entirely
“forgotten; and those which remain if they can interest you are
“entirely at your service. With the sincerest wishes for the suc-
“cess of your useful and arduous undertaking,

“I am, dear Sir,

“Yours, very respectfully,

“NATHANIEL POTTER.”

To the above very interesting detail I shall add the following recent fact which fell under my own observation, and conclude my account of this singular species.

In the month of July last I took from the nest of the Maryland Yellow-throat, which was built among the dry leaves at the root of a briar bush, a young male Cow Bunting, which filled and occupied the whole nest. I had previously watched the motions of the foster parents for more than an hour, in order to ascertain whether any more of their young were lurking about or not; and was fully satisfied that there were none. They had in all probability perished in the manner before mentioned. I took this bird home with me, and placed it in the same cage with a Red-bird (*Loxia cardinalis*), who, at first, and for several minutes after, examined it closely, and seemingly with great curiosity. It soon became clamorous for food, and from that moment the Red-bird seemed to adopt it as his own, feeding it with all the assiduity and tenderness of the most affectionate nurse. When he found that the grasshopper which he had brought it was too large for it to swallow, he took the insect from it, broke it in small portions, chewed them a little to soften them, and with all the gentleness and delicacy imaginable put them separately into its mouth. He often spent several minutes in looking at and examining it all over, and in picking off any particles of dirt that he observed on its plumage. In teaching and encouraging it to learn to eat of itself, he often reminded me of the lines of Goldsmith,

He tried each art, reprov'd each dull delay,
Allur'd to "*fav'rite food*," and led the way.

This Cow-bird is now six months old, is in complete plumage; and repays the affectionate services of his foster parent with a frequent display of all the musical talents with which nature has gifted him. These, it must be confessed, are far from being ravishing; yet for

their singularity are worthy of notice. He spreads his wings, swells his body into a globular form, bristling every feather in the manner of a turkey cock, and with great seeming difficulty utters a few low, spluttering notes, as if proceeding from his belly; always, on these occasions, strutting in front of the spectator with great consequential affectation.

To see the Red-bird, who is himself so excellent a performer, silently listening to all this guttural splutter, reminds me of the great Handel contemplating a wretched cat-gut scraper. Perhaps, however, these may be meant for the notes of *love* and *gratitude*, which are sweeter to the ear, and dearer to the heart, than all the artificial solos or concertos on this side heaven.

The length of this species is seven inches, breadth eleven inches; the head and neck is of a very deep silky drab; the upper part of the breast a dark changeable violet; the rest of the bird is black, with a considerable gloss of green when exposed to a good light; the form of the bill is faithfully represented in the plate; it is evidently that of an *Emberiza*; the tail is slightly forked; legs and claws glossy black, strong and muscular; iris of the eye dark hazel. Catesby says of this bird, "it is all over of a brown color, "and something lighter below;" a description that applies only to the female, and has been repeated, in nearly the same words, by almost all succeeding ornithologists. The young male birds are at first altogether brown, and for a month, or more, are naked of feathers round the eye and mouth; the breast is also spotted like that of a Thrush, with light drab and darker streaks. In about two months after they leave the nest, the black commences at the shoulders of the wings, and gradually increases along each side, as the young feathers come out, until the bird appears mottled on the back and breast with deep black, and light drab. At three months the colors of the plumage are complete, and, except in moulting are subject to no periodical change.

MARYLAND YELLOW-THROAT.

SYLVIA MARILANDICA.[Plate XVIII.—Fig. 4.—*Female.*]

THE male of this species having been represented in the preceding volume,* accompanied by a particular detail of its manners, I have little farther to add here relative to this bird. I found several of them round Wilmington, North Carolina, in the month of January, along the margin of the river, and by the Cypress swamp, on the opposite side. The individual from which the figure in the plate was taken, was the actual nurse of the young Cow-pen Bunting, which it is represented in the act of feeding.

It is five inches long, and seven in extent; the whole upper parts green olive, something brownish on the neck, tips of the wings and head; the lower parts yellow, brightest on the throat and vent; legs flesh colored. The chief difference between this and the male in the markings of their plumage, is, that the female is destitute of the black bar thro the eyes, and the bordering one of pale bluish white.

* See Amer. Orn. vol. I, plate vi, fig. 1.

SMALL BLUE GREY FLYCATCHER.

MUSCICAPA CÆRULEA.

[Plate XVIII.—Fig. 5.]

Motacilla cærulea, TURTON, *Syst.* I, p. 612.—*Blue Flycatcher*, EDW. *pl.* 302.—*Regulus gri-seus*, the little *Bluish Grey Wren*, BARTRAM, p. 291.—*Le figuier gris de fer*, BUFF. V, p. 309.—*Cærulean Warbler*, ARCT. Zool. II, No. 299.—LATH. *Syn.* IV, p. 490, No. 127.—PEALE'S *Museum*, No. 6829.

THIS diminutive species, but for the length of the tail, would rank next to our Humming-bird in magnitude. It is a very dexterous Flycatcher, and has also something of the manners of the Titmouse, with whom, in early spring and Fall, it frequently associates. It arrives in Pennsylvania from the south about the middle of April; and about the beginning of May builds its nest, which it generally fixes among the twigs of a tree, sometimes at the height of ten feet from the ground, sometimes fifty feet high, on the extremities of the tops of a high tree in the woods. This nest is formed of very slight and perishable materials, the husks of buds, stems of old leaves, withered blossoms of weeds, down from the stalks of fern, coated on the outside with grey lichen, and lined with a few horse hairs. Yet in this frail receptacle, which one would think scarcely sufficient to admit the body of the owner, and sustain even its weight, does the female Cow-bird venture to deposit her egg; and to the management of these pigmy nurses leaves the fate of her helpless young. The motions of this little bird are quick; he seems always on the look out for insects; darts about from one part of the tree to another with hanging wings and erected tail, making a feeble chirping, *tsee, tsee*, no louder than a mouse. Tho so small in itself, it is ambitious of hunting on the

highest branches, and is seldom seen among the humbler thickets. It remains with us until the twentieth or twenty-eighth of September; after which we see no more of it till the succeeding spring. I observed this bird near Savannah, in Georgia, early in March; but it does not winter even in the southern parts of that state.

The length of this species is four inches and a half, extent six and a half; front and line over the eye black; bill black, very slender, overhanging at the tip, notched, broad, and furnished with bristles at the base; the color of the plumage above is a light bluish grey, bluest on the head, below bluish white; tail longer than the body, a little rounded, and black, except the exterior feathers, which are almost all white, and the next two also tipped with white; tail coverts black; wings brownish black, some of the secondaries next the body edged with white; legs extremely slender, about three-fourths of an inch long, and of a bluish black color. The female is distinguished by wanting the black line round the front.

The food of this bird is small winged insects and their larvæ, but particularly the former, which it seems almost always in pursuit of.

WHITE-EYED FLYCATCHER.

MUSCICAPA CANTATRIX.

[Plate XVIII.—Fig. 6.]

Muscicapa noveboracensis, GMEL. *Syst.* I, p. 947.—*Hanging Flycatcher*, LATH. *Syn. Supp.* p. 174.—*Arct. Zool.* p. 389, No. 274.—*Muscicapa cantatrix*, the little Domestic Flycatcher, or Green Wren, BARTRAM, p. 290.—PEALE'S *Museum*, No. 6778.

THIS is another of the Cow-bird's adopted nurses; a lively, active, and sociable little bird, possessing a strong voice for its size, and a great variety of notes; and singing with little intermission, from its first arrival about the middle of April, to a little before its departure in September. On the twenty-seventh of February I heard this bird in the southern parts of the state of Georgia, in considerable numbers, singing with great vivacity. They had only arrived a few days before. Its arrival in Pennsylvania, after an interval of seven weeks, is a proof that our birds of passage, particularly the smaller species, do not migrate at once from south to north; but progress daily, keeping company, as it were, with the advances of spring. It has been observed in the neighbourhood of Savannah so late as the middle of November; and probably winters in Mexico, and the West Indies.

This bird builds a very neat little nest, often in the figure of an inverted cone; it is suspended by the upper edge of the two sides, on the circular bend of a prickly vine, a species of smilax that generally grows in low thickets. Outwardly it is constructed of various light materials, bits of rotten wood, fibres of dry stalks of weeds, pieces of paper, commonly newspapers, an article almost always found about its nest, so that some of my friends have given it the name of the *Politician*; all these substances are interwoven

with the silk of caterpillars, and the inside is lined with fine dry grass and hair. The female lays five eggs, pure white, marked near the great end with a very few small dots of deep black or purple. They generally raise two brood in a season. They seem particularly attached to thickets of this species of smilax, and make a great ado when any one comes near their nest; approaching within a few feet, looking down, and scolding with great vehemence. In Pennsylvania they are a numerous species.

The White-eye Flycatcher is five inches and a quarter long, and seven in extent; the upper parts are a fine yellow olive, those below white, except the sides of the breast, and under the wings, which are yellow; line round the eye, and spot near the nostril also rich yellow; wings deep dusky black, edged with olive green, and crossed with two bars of pale yellow; tail forked, brownish black, edged with green olive; bill, legs and feet light blue; the sides of the neck incline to a greyish ash. The female, and young of the first season, are scarcely distinguishable in plumage from the male.

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